

Numberphile Podcast Transcript
Episode: Parker Square - with Matt Parker
Episode Released Feb 24 2019

Standup mathematician Matt Parker opens his heart to reveal... a standup comedian who loves mathematics.

[This is the link for 'Humble Pi' - signed first-edition hardback](#)

[Matt Parker videos on Numberphile](#)

[Matt's website](#)

[The notorious Parker Square video](#)

[Parker Square T-Shirts via Numberphile on Teespring](#)

[The Malls Balls](#)

With thanks to

[MSRI](#)

[Meyer Sound](#)

[You can support Numberphile on Patreon](#)

A note: Humble Pi will be released at different times in different countries, [but you can get your signed copy ASAP pretty much ANYWHERE in the world via Maths Gear](#)

Direct Download: <https://www.numberphile.com/podcast/matt-parker>

Listen on Numberphile2: https://youtu.be/18kehjRa_Ig

Brady Haran [BH]: So Matt I know you're like stand-up comedy. You're the funny man of mathematics. But you are allowed to be serious today. I wanna get, you know... I wanna see what's inside your heart.

Matt Parker [MP]: I'm looking forward to the opportunity.

BH: I want the tears of clown.

MP: Behind the happy face is always... actually it's just... I'm fine actually.

[gentle piano music fades in slowly]

BH: If we end up with tears I feel like in some ways I will have done my job really well but in other ways it will have gone catastrophically. [laughs]

[music continues to fade up]

MP: I will feel slightly bullied. [chuckles]

[music continues]

BH: [laughs] I know. Alright we'll see where we end up on that front.

[music continues]

BH: Matt Parker will be familiar to most people who watch Numberphile videos.

[music continues]

[Numberphile video clips of Matt Parker overlapping and echoing]: Today we're gonna look at the fact that all prime numbers are... the rules are... when you square them... you're allowed to add numbers together. [cacophony of voices mix] You're allowed to sort... of runway... for some reason Brady has printed out the first one million digits of pi. [reverbs and echoes]

[music continues]

BH: He's already been in about fifty of them and there are more on the way.

And to borrow a cliché, it'd be fair to describe Matt as one of the busiest people in mathematical show business. [music continues] He regularly performs to sell out shows. He broadcasts across the full range of media and more recently he's started writing books. All of his endeavors combine a unique blend of genuinely funny comedy with an equally genuine for proper real deal mathematics.

[music fades up and out]

BH: How do you explain your job to a stranger or a taxi driver or someone? Like... when you meet someone who has no idea what you do and they say, hey mate what do you do for living?

MP: That's a really good question. [sighs] 'Cause there is no concise way of doing it and when I'm at my happiest is when someone asks my wife what I do for a living.

BH: Yeah?

MP: Often if I'm nearby I'm like alright let's hear this, this could be interesting. Actually it happened when we got married we had to do an interview to prove that it was a legitimate marriage because I wasn't British, and one of the questions in the interview process to check that you're a real couple...

BH: [chuckles]

MP: [chuckles] ...they turn to Lucy and said, so describe Matt's job. And I was like... can't wait to hear this! [chuckles] Go for it!

BH: So you're in the room? They don't put you in separate rooms for this interrogation?

MP: Well, they're meant to... they can at their discretion they can put you in

separate rooms... on our case they're like look there's just one of us here would you mind being in the room.

BH: Yeah.

MP: I think we... we were not a high risk case.

BH: [chuckles] So it was like Mr. and Mrs. for your life?

MP: It was like Mr. and Mrs. but the prize is being allowed to get married.
[laughs]

BH: Right.

MP: And so she's a solar physicist. Boom. There's my answer for her. She just said, uhh... maths teacher. Which is correct and I think that's what was written on my form... and to be honest that's the answer I give. If a taxi driver or someone says, what do you do for a living? I just say... I'm a maths teacher, because they're then very few follow on questions and if you say...

BH: [laughs]

MP: I'm a stand-up comedian... never say that. 'Cause they always want you to tell a joke.

BH: Yeah. [laughs]

MP: And I'm not doing that. And if you say Youtuber, they're like, oh! And they've got some opinion or thing they wanna go on about that. What'd you say? Do you say... you make Youtube videos or...?

BH: Yeah I say I make Youtube videos and usually they'll say, about what?

And I'll say kinda geeky stuff like science and maths and then they shut up.

MP: Oh okay so it's one further step to get to...

BH: Yeah.

MP: Yeah that makes sense.

BH: Were you disappointed when your wife said, he's a maths teacher?

MP: No!

BH: Did you want her to go into this proud spiel about all your success and fans and...?

MP: No! No, very happy to [chuckles] just go with maths teacher and that's what I always say. And... it would tend to be... if it's like a party scenario and I say maths teacher, it'll be people I know or my wife who then says... he's underselling what he does. He also blah blah blah blah. Actually the most common place I get asked is going into the United States in immigration. They're like so what do you do, sir? And so I tend to say maths teacher or math teacher but the problem is then they're like oh isn't school in at the moment? I'm like oh well yeah but I work part-time for a university and I do this and I do that and the other. Now I think I'm just gonna start saying author. And they're not gonna ask me, oh quick write a chapter, right? But they're also not gonna have too many follow on questions or then... oh, what sort of author? And then I'll say maths books and then you know... [chuckles]

BH: [laughs] That's it!

MP: There's no follow on questions! [laughs] So, done! But all roads lead to, oh... maths huh? And then that's it.

BH: That's like the ultimate conversational dead-end.

MP: Yeah. It really is. [chuckles]

BH: Let's go to your beginnings because at last I'm interviewing someone who is from the great nation that I am from of Australia.

MP: Glorious sunburnt land.

BH: You were born in Australia.

MP: I was born in Perth, Western Australian.

BH: Okay.

MP: So, you're from Adelaide.

BH: Yes.

MP: Which is lovely.

BH: Thank you.

MP: It's got a great mall.

BH: [laughs]

MP: [laughs]

BH: Do you know the mall's balls got vandalized the other day?

MP: What! Really?

BH: There's this sculpture of these two giant silver balls in Rundle Mall in Adelaide called...

MP: You could tell my brain was then thinking...

BH: I know.

MP: Should I reference the mall's balls or not?

BH: No. Yeah.

MP: Really someone's vandalized them?

BH: Someone went and graffitied them. He's like a pariah in Adelaide now.

MP: [sighs]

BH: Anyway sorry we... we digressed.

MP: That's outrageous. Okay.

BH: So you're from Perth...

MP: I'm from Perth.

BH: ...which is a long way from Adelaide.

MP: A long way from Adelaide. I once drove from Perth to Adelaide.

BH: Hmm.

MP: In fact we drove from Perth to... Melbourne I think... to the Melbourne comedy festival.

BH: Wow.

MP: And I'd already done the Adelaide Fringe and then went to Perth to see the family. 'Cause my mum gets very upset 'cause my mum and dad still live in Perth.

BH: Yeah.

MP: And I go to Australia quite a bit for work but it tends to be Sydney, Melbourne, occasionally Adelaide. And my mum gets a bit emotional if I literally fly over her without visiting, right?

BH: Yeah.

MP: So every trip I go to Perth, which is great. I see family and hang out. And then Lucy and I hired a camper van and drove from Perth to Melbourne which took eight and half days. And it's a good... I think it was like must have been four or five days before we even got to Adelaide, which is the nearest...

BH: Yeah.

MP: ...city, right?

BH: It's the first stop. [laughs]

MP: I have to say it is the first stop, we're like well that's like day five.

BH: So you drove across the Nullarbor Plains.

MP: We did the Nullarbor Plains. And actually we stopped every megameter, so every one thousand kilometers. The whole trip was three point six megameters. We got out of the car and took a photo because Lucy's research, she's a solar physicist, her research everything's done in megameters, like ten to six meters. That's just what she uses. But on the sun like that's tiny and we actually paced out just over three megameters and I want to show this to you 'cause she's British, just the size of Australia and growing up in Perth, it's very isolated, which has pros and cons. And the scale until you drive it, it's such an abstract concept. The distances involved and so we're like right we're are gonna drive across the Nullarbor. We're gonna see the fact there's one bit that's dead straight for ninety miles and then it's the same scenery day after day. And we got to one service station which had a motel made out of shipping crates attached to it and Lucy's like oh this isn't... it's not very nice. And I was like, d'you wanna drive to the next one? She's like yep!

BH: [laughs]

MP: So we got back in the car, two hours later another service station with a few shipping crates turned into a motel and we're like well... this is just what you get, right? This is the Nullarbor.

BH: Nullarbor of course means no trees.

MP: No trees, yeah exactly and there are no trees. That is not false advertising. There's a null number of trees across the Nullarbor, which I love so like yourself I've lived in the UK now for... goodness I've done like... [pause] decade and a half...

BH: Hmm.

MP: ...now. So, you know, I've obviously got a love for Britain and the British

people.

BH: Do you consider yourself an Australian or a Brit?

MP: You know, I consider myself Australian.

BH: Yeah.

MP: And that's difficult having a British accent. So [chuckles]...

BH: You think you have a British accent?

MP: I definitely have a British accent.

BH: Dude! [laughs]

MP: Well it's strange so...

BH: If you have a British, what have I got!

MP: Well you're definitely more Australian than... I think... you've got a better Aussie accent than me.

BH: You think I sound more Australian than you?

MP: I think you sound more Australian than me.

BH: I think the exact opposite.

MP: Really!

BH: Yeah.

MP: Oh, they're you go.

BH: Well anyway, 'cause we'll...

MP: We were in Kalgoorlie, which is this mining town where the... paternal side of my family comes from Kalgoorlie.

BH: Yeah?

MP: And so Lucy and I have actually been there a couple times we really like Kalgoorlie. It's like this wild west mining town. It's terrible.

BH: Hmm.

MP: But we love it. And it's where the Halfords who my... paternal grandmother's line came from.

BH: Hmm.

MP: And we got there and we'd missed when the hotel we'd book had closed, like 'cause it's a long time to get there and we just took a bit too long and when it's closed it's closed, right? We're now... and we bumped into someone else staying in that hotel and we were like oh we just missed them closing and now we can't get into til tomorrow. And then they're like oh well you know... they were talking about Kalgoorlie and I was like oh, actually Lucy said, oh Matt's actually Perth. And they were, like what! And I said, yeah my accent's changed a lot. And they just looked at me and went, ah that's a shocker. Now whenever I talk occasionally Lucy will go, ah that's a shocker.

BH: [laughs]

MP: 'Cause just my accent to Australians is super British.

BH: Yeah.

MP: But to British people I still sound very Australian and to Australians who live abroad I fall into a spectrum. So some of my... I still do weird things to some vowels.

BH: That's between you and the vowels, Matt.

MP: That's it exactly! [laughs] Some inflections here and there and certain words and phrases and even weird things like... is it gotten... there's a few words that I would use all the time and then people are like, oh that's a weird way to say that.

BH: So as a boy in Perth when you did still have an Australian accent. Were you a math kid straight away? Was the writing on the wall?

MP: I was nerdy right out of the gates. So... obviously I played a bit of sport because in Australian everyone's forced to play every sport just to make sure you're not good at any of them.

BH: That was eliminated was it? [laughs]

MP: It really was. That's why Australian punches above it's weight in the... my argument... international sport... is we just check every citizen...

BH: [laughs]

MP: ...against every sport when they're in primary school just to see if they're good at them or not, right?

BH: Were there any that you had any aptitude for?

MP: I could play basketball.

BH: Yeah?

MP: And so I was on the high school basketball team and I loved playing basketball and that was great and height is a bit of advantage and I could jump, right? And I thoroughly enjoyed basketball. Terrible at cricket. I was adequate at lacrosse.

BH: [chuckles]

MP: I know. Didn't see that coming.

BH: No?

MP: So... eh, gave that a go. Passable at football and soccer and the rest, right? But I loved nerdy things and so my dad is an accountant and my mum trained as a dental assistant but then basically has either worked in bookshops or libraries ever since. And so it's quite a nerdy family in that regard.

BH: Yeah.

MP: And when I was very young my dad gave me exercise books to do which were arithmetic and I quite enjoyed that, right? It's one of my earlier memories is enjoying doing adding up which, you know, that worked out. And I often say when I'm asked about my background that it was an advantage going to school already liking maths. Or already being convinced that it's a fun thing to do. And I think that's very true, you know, if you don't like maths it's easy to get behind and once you're behind you're in big trouble. So the fact that it was at home and you know, my rolling start, I always enjoyed it, I loved it, but I still enjoyed

physics and chemistry and when I was younger a lot of biology bits and even like I was doing programming. There's a thing in Perth called P-EC, which I think still runs, which is Primary Extension and Challenge. And that's where they get a bunch of kids, they're like hey you look a bit bored in lessons and you do a different thing at a different school once a term and one time it was programming and one time it was stop animation and one time it was sampling bugs from a swamp over the course of a season or something, right? And that was such a wide range of nerdy things and that's my first memories of programming and maths and chemistry and a bunch of other things and I've been a poly-nerd, I think, ever since.

BH: What would the answer have been when, you know, people were, and what do you want to be when you grow up? Like once you sort of were old enough to have the concept of a career in mind, what were you aiming at back then?

MP: Oh my absolute first memory of what I want to be when I grew up was a bricklayer.

BH: Right? [chuckles]

MP: Because I liked building, people building buildings! Like, that's amazing. And then that gradually transformed into engineering when I realized just putting the bricks in place is probably not the most fun part, although I still enjoy, you know, construction and hands on things. And so I actually studied engineering at university, initially.

BH: Right?

MP: And this is just between us and all the... Numberphile podcasts listeners... I initially enrolled in a mechatronic engineering degree.

BH: What does that mean like...?

MP: Which means you're doing mechanical engineering with electronics.

BH: Okay.

MP: Turns out... I'm terrible at electrical engineering. Like I used to love soldering and I've been soldering, you know, since primary school and I love electrical circuits... but that kind of electrical engineering that hardcore analysis of circuits I just didn't... I was like oh this isn't exciting. And I really enjoyed civil engineering because we were forced to do some civil units so... love concrete. Big fan of concrete as I discovered in material engineering and so I really enjoyed all this but I did it as a double major. So, I was doing a double major in mechatronic which then became... mechanical engineering and... physics. First year I did computer science as well, 'cause you're allowed to do an extra first year. And so I did first year compsci, again loved that but never pursued it beyond that. And I did two years of engineering and I was like... this is not for me.

BH: Right?

MP: And I'd done all the requirements for the first two years of a maths degree while doing physics and then I did an extra year on the end which was the third year of maths, and so then I did my maths, Bachelors. So I officially got a Bachelor of Science double majoring in physics and mathematics.

BH: So for that first year or two when you were like going more engineeringy and physics, had you kind of put mathematics to one side for a bit? Had you like... 'cause the Matt I know obviously is, you know, all about the mathematics.

MP: You know it!

BH: Was there a year or two when that sort of subsided or where you still...?

MP: Not really! It was always there. And my educational career was just a gradual... shedding of bits. So if you spoke to me when I was in high school I probably wouldn't have been... I woulda split maths, physics and chemistry. And by the end of high school, chemistry I was like, ugh I'm sick of memorizing the colors of things that precipitate out and salts and all these things and then I loved physics so I did a physics degree, absolutely loved it but I was kind of just happiest when the equations were working out well. But I enjoyed it enough that I finished the degree and looked at doing postgraduate physics but then I was like actually I really like loved the maths aspects so I was like well let's do the maths degree, I was like well I'm not in a rush. I thoroughly enjoyed the equations doing physics. I enjoyed all the maths units, let's do third year maths, I don't wanna miss out on that. And what actually bumped me... into hard maths... [pause] and I've still got a soft spot for physics obviously... was after that I did a teaching qualification. [pause] And I was like, whatta I wanna teach? What did I enjoy talking about the most? And it was maths. And so... then I did a maths teaching qualification afterwards and that's what finally steered me into hardcore maths and to this day I kind of keep an eye on physics and my brother's a physicist and my wife's a physicist but... since then I've just got more and more into maths and the fact that I can do it at a recreational level in kind of a way you can't do physics I find... amazing.

BH: What made you wanna be a teacher? Why not be like... you know... a math researcher and prove the Riemann Hypothesis or become like a... university mathematician or... you know make a million dollars...

MP: Yeah.

BH: ...in Wall Street? Like why did you want to be a teacher?

MP: So the reason why I left studying was I was like, okay I could go into do, you know, a PhD would be the next step. I wasn't a brilliant theoretical physicist.

I quite enjoyed experimental stuff and I was like okay but I was so sick of... I'd done four years at that point and I was like, oh I just need a break from constant studying. But I had been tutoring high school students to make ends meet, I was like, oh I really enjoy doing that. I also fancied moving to the UK because I'd been to the UK for a gap year before I went to university and I was like I loved it in the UK and no one should spend their whole life in Perth. Like I loved Perth. Everyone in Perth needs to live somewhere else for a year at least. And I'd done this gap year but I did that when I was like seventeen and I was like, you know what, as an adult I'd like to go live in England again and I was like, well I don't wanna just work in pubs. [pause] And so genuinely my logic was, I'll get a teaching qualification and then I can teach... in England while traveling. That was my plan. But it wasn't just that, 'cause that's a lot of effort to go on vacation. I was also thinking I wonder if I would enjoy this as a career, and this is a good way to find out. And the teaching qualification is one year. The... diploma of education is a one year postgraduate diploma and you get to do a placement pretty quick. And I was like well I'm gonna do my first placement within like four months. I'll find out very quickly if I enjoy teaching. And I absolutely loved it. I loved my placements, I loved the qualification. I then actually taught in Australia for a year first, 'cause I kinda thought, well I'm enjoying this, I should do it in my own culture first. [pause] And so I taught for one year in Perth, had a great time but then I was like, you know, originally I wanted to go to the UK and so I then went on the... I got the two year working holiday to the UK and off I went. And taught some of the time, traveled some of the time, absolutely enjoyed it and towards the end of that is when I started doing work for universities and that's when I started to drift out of teaching so I then moved on to a more permanent visa doing educational support stuff in the UK.

BH: Often when you... speak to people who become teachers they talk about... those first months when they go into the classroom and often they're quite horrific stories, like people are like, I wasn't prepared for the stress and the amount of work but you seem to be talking about it very fondly. Was it not jumping in the deep end?

MP: Oh, that's... don't get me wrong, it was incredibly difficult. So, actually I spoke to a new teacher last night. They came to a talk I did. A physics teacher and I often get asked for advice, 'cause people know I was a teacher. And I always say your first year of teaching is the hardest year of your life. Well, no, actually depending on how your training is done, for me my diploma of education was the hardest year of my life and my first year of teaching was the second hardest year of my life. It's, there's no way to learn teaching than doing it. You learn a bit of theory and then you gotta stand up in front of teenagers and convince them to listen to you, but it gets... dramatically easier with experience 'cause you see a student, your second or third year teaching, a student would do something stupid and you're like, oh I've dealt with this before. Right? And you're so much better the second time, and once you've... when you first start you're staying up until after midnight planning lessons, because you're doing everything from scratch. But then, second, third year in, you're like, oh okay, I've taught this before, I've already got the resources. And a... teacher I worked with, guy called Kim Lee, when I was at my first year of teaching said after five years teaching becomes more of a hobby. And it's true, it starts as the hardest thing you'll ever do and in five years it's a hobby that you do on the side with the rest of your work life balance. And I taught for four years so I fell just short of that. But I miss it, right? It's really... it's super hard work but it is very rewarding.

BH: Matt obviously a lot of your communication of math now, that we'll come on to shortly, involves comedy and humor.

MP: Mhm.

BH: Were you like that as a teacher from day one? Were you Mr. Parker the funny teacher?

MP: I was not! No.

BH: No?

MP: No. 'Cause comedy doesn't fly with teenagers and the moment teenagers think you're trying to impress them, this is my motto. The moment they think you're trying to impress them, it's all over. And so I wasn't the funny teacher. Although I... you know... there's a certain amount of dry humor that gets you through dealing with teenagers.

BH: Hmm.

MP: Which a few students that will resonate with and you can spot the ones who've got... well, I would say an advanced sense of humor but obviously I'm biased. Right, and so that's kind of fun, right? And I got endless entertainment from saying things which I knew the students would find hilarious but I do it with a straight face, right? And they can't tell... you know they're like... I can't believe you said that. And I'm like ha ha ha, can't believe they didn't know I said that deliberately. Which is good fun but... [pause] comedy is very different to teaching. When I was at uni I did bits of comedy writing, I wrote for the student paper, the Pelican at University of Western Australian.

BH: Oh, the Pelican!

MP: The Pelican.

BH: Oh alright. [laughs]

MP: That's right, it's no Adelaide Advertiser but it's...

BH: [laughs]

MP: ...it's a decent publication. [laughs]

BH: Hang on a second. Hang on a second, you're now commingling my important newspaper with like a student paper. [laughs]

MP: Oh! I think they're all peers! [laughs]

BH: This apples and oranges here. [laughs]

MP: Oh really! [laughs] Oh... sorry!

BH: [laughs]

MP: Didn't know one of us is a real journalist. [laughs]

BH: [laughs]

MP: So... [laughs]

BH: But in university you were into comedy like...?

MP: I was into comedy, I was into comedy, yes.

BH: Performing as well or just writing?

MP: Just writing. And I did short films.

BH: Yeah?

MP: So... this is before Youtube so I made short films for short film festivals.

BH: Yeah?

MP: And then I had... a spot on the community television station. So Channel

31.

BH: [gasps]

MP: I was making little comedy videos. They weren't maths or nerdy they were just... comedy skit kinda things.

BH: Like, what's an example of one? What would happen?

MP: Oh goodness... so... we used to do a bunch of really surrealist stuff. So my absolute favorite. The one that... was just ideal. It's just this shot of a road in Perth with traffic diving along and then I walk into frame from one side with a big roll under my arm and I roll out a zebra crossing across the road.

BH: [laughs]

MP: And then the traffic all stops. And then I cross the zebra crossing and then I roll back up...

BH: [laughs]

MP: ...and then walk off!

BH: Did you do that for real or was it set up?

MP: I did it for real! Did it genuinely for real.

BH: You didn't set up the drivers or anything?

MP: Nope! I was... I did things properly, right?

BH: Cool!

MP: And I was just like, oh it's so funny. Right, and it was that kinda weird, not Trigger Happy TV or... Jackass but something like weird skits but filmed guerrilla style...

BH: Yeah.

MP: ...in locations.

BH: Yeah, yeah.

MP: But legal enough that we could put them on community television.

BH: Right. [laughs]

MP: And so I used to love doing that, right? And so we used to write all these stupid films and... me and friend of mine we remade a video about drugs from the Sixties entirely in finger puppets. So we did a complete reedit of the audio and then refilmed it... did a remake with finger puppets.

BH: [gasps]

MP: Right? And we thought we were hilarious.

BH: Yeah.

MP: Entered it into a film festival, right? That kind of stuff.

BH: Yeah.

MP: But then all that went on hold when I went to teaching and it was a while into teaching when I was like... oh I miss... like teaching is a creative outlet,

don't get me wrong, but I missed that kind of comedy, pure creative outlet.

BH: So this is now when you're in the UK, you're starting to get like the itch to... do funny things again?

MP: Yeah. So I did a little bit in that... at the end of the year I would do... a entertaining lesson for the students which wasn't on... something they had to know. So I did like... you know I'm gonna do just a whole talk about Pythagoras, right? And I'd put in some things that I thought were kind of funny teacher jokes.

BH: Yeah.

MP: Which math teacher jokes are a very specific genre.

BH: Yeah. [chuckles]

MP: But then I'd go, oh... the students from the lesson next door would come in and do that. And one time when I was teaching in the UK, the school that I was at forgot to book... they were trying to book Simon Singh's Enigma school visits, which James Grime now does, right?

BH: Yeah.

MP: But this is before James did it. I knew James before he was doing that and this was 2006, I think Claire Ellis was doing it at the time? And they forgot to book Simon Singh's Enigma machine.

BH: Yeah?

MP: But we had all of year 9, and I was like... I'll give it a go!

BH: This is your moment.

MP: This is it! This is my time to shine.

BH: A star is born!

MP: I'll do a talk! And that was it and so I did a... interesting maths talk for year 9.

BH: With how much preparation? How long out did they realize there was a problem?

MP: A week or two? Like long enough.

BH: Do you remember what it was about?

MP: Yeah! I did... a little bit about maths in the Simpsons. Which now obviously Simon Singh has written a book about and so you think well you know... I replaced it with what would future be a Simon Singh topic... and I talked about some probability stuff, I did the Birthday Paradox, which is a classic of the genre.

BH: Was this a funny talk or was this a...?

MP: It was an entertaining talk. Again they're teenagers and to this day I still do big talks for teenagers, something that's entertaining for teenagers is an usual form of entertainment. Because they're teenagers and they have no life experience and they don't like to think you're trying to impress them but they do find things funny and so you gotta entertain them despite themselves which I love doing. [pause] And so it was a nearly proto-version of that. I wasn't cracking jokes, but I was doing entertaining things with the maths.

BH: Were people coming up to you saying, oh Matt you should turn professional...

MP: No.

BH: Or was it just your pure enjoyment of the...?

MP: It's my pure... enjoyment of doing it myself. I was like I love this, I want to do more of this and then I did some work on a summer school at Imperial College. I helped in the branch which was teaching students programming and then occasionally there'd be some dead time. Like in the morning they would come in, there'd be like an hour before we got going and I was like... oh, I'll do a morning puzzle or a morning talk.

BH: Yeah?

MP: And I started... filling in whenever there was a gap in the schedule, I'd do a bit of a talk. And I loved that and that is what then made me think, hey, there could be a career doing this bit that I enjoy. The... talking about maths which the students don't have to know but in an interesting way.

BH: So you sorta saw a market for it beyond students or were you thinking I could be going and talking to students or were you thinking, no I could do this in pubs and the venues?

MP: It was both. So also in 2006... with... another maths teacher, a guy called Julian Smith, we filmed but never finished a Youtube video about similar triangles. 'Cause we were like, hey this Youtube thing just happened, that's exciting, let's do some videos about maths. But we were filming it on like TV tapes and then we never got it finished. 'Cause we were originally thinking it'd be useful for teachers to use in their classes and at the same time I was thinking... wouldn't it be great to do the fun bit of teaching but for adults. And

so all of this was kind of happening at about the same time and then I thought, you know what, if I want to be serious about doing these talks for students and doing them well and if I'm serious about thinking maybe this would work for adults and possibly doing it in video and other forms, I need to get better at public speaking.

BH: Mhm.

MP: And so I'd worked from Imperial for a while 'cause after the summer schools I stayed on and did some work with their outreach and then I went back to teaching for a while and when I went back to teaching that's when I went, right... I'm gonna go back to teacher 'cause that's a good stable job while I work out how I'm gonna do this dream job I wanna do. And I realized I need public speaking training but I looked up public speaking training and all the options are very corporate. How to give a business presentation, how to sell. And I was like, no no I just wanna be entertaining and then I saw you could do a course in stand-up comedy and I've got a very academic approach to life and I was like... that's perfect! I'll do that, as an evening course it was one evening a week for ten weeks and you finish by doing like a show where everyone in the course does their bits and it was like fundamentals of stand-up comedy and I was like brilliant. I'll go in there, get all those delicious transferable skills, right, and then apply them to maths. And I did... so I did the course but I loved it, absolutely loved doing stand-up and so instead...

BH: Were you already like incorporating math content into it or were you going along completely as a guy who, I could be a comedian or anything.

MP: I started quite pure but I still talked about being a mathematician.

BH: Right.

MP: And so the very first joke I told on stage was... it was a classic, hey! I just

noticed if you go into... Sainsbury's, you can buy a cake from their in house bakery and they will print any photograph you want on the top of that cake, so I... whenever I have to buy a cake to save money, I buy the cheapest cake they've got and get a photo of a really nice cake printed on the top, right? And that's... that's not a maths joke... it's probably not even technically a joke...

BH: [laughs]

MP: [chuckles] ...but that kind of... self referential humor... that playing with logic... that became my schtick. It was, I'm a mathematician. I think the world should be logical. Here's some funny ways my logical view on life plays out and here's when I get upset that reality's not as logical as I think it should be. And so I was a very nerdy character on stage which was just me. But I didn't communicate any maths, but I talked about being a mathematician.

BH: That first gig you mentioned, tell me the story of that. Because that must've been like your first... teaching lesson as well?

MP: Oh it was so. It was a special moment because it must've been two or three weeks into doing this stand-up course, and it was all very supportive and you get up and the first week is just talk about yourself and then we're gradually learning how to tell jokes and how to structure comedy and a few of us were like... how hard can this be?

BH: Yeah.

MP: Really, like we're all killing it here. Right? [laughs] How hard can it be in the real world? And so I think four of us... signed up for an open mic night. We're like... let's get out there in the real world. Let's see what it's really like. So we all signed up for this open mic night and on the night only I showed up.

BH: [laughs] What the others just...

MP: The others just bailed! All of them. And I got there and no one else came along and I was like you jerks!

BH: Did you have family or friends to help you?

MP: No one!

BH: Okay.

MP: So I walk into this pub where the comedy night was and everyone else is like oh! I can't make it. Oh! I can't go anymore, right? Everyone else dropped out. And I was like, oh for crying out loud. [sighs] So, I looked around the room, I said those people over there look like they're also here for the comedy night, so I wandered over, hey are you guys here for the comedy night? And they're like oh yeah we're all new comedians [high pitched voice]. I was like brilliant. You're my people. And so...

BH: And was there a big audience?

MP: And so I did it. Nah! It... so it was at a pub... one day there'll be a blue plaque there... it was a pub... [chuckles]

BH: [laughs]

MP: It was a pub in London. It was the Queen's Head just behind Piccadilly Circus. They don't do comedy there anymore. I was... there the other day...

BH: [laughs] It was since that night. [laughs]

MP: They're like hey! It can't get any better than this, close the club down. [laughs] And so they had an open mic night. God it was terrible, it was so

terrible.

BH: Did it go well? Like obviously you're, you know...

MP: I had a great time. I had a great time. The problem was... what's difficult about open mic nights is it's very hard to get an audience and there's various ways to get around this, and the way this comedy night got around it is to get on stage you had to bring audience members.

BH: Right. [chuckles]

MP: And the more audience members you brought, I kid you not, the longer you got on stage.

BH: Right. [laughs]

MP: [chuckles] And I brought roughly zero people.

BH: Okay.

MP: So they're like, nah mate, you get two minutes at the end.

BH: Right.

MP: And so... everyone else did their bits and then they're like... and here's the jerk who didn't bring anyone and I'm like, hey everyone [sheepish voice]. Right, and so I got up and did a two minute routine and at the end of it the audience enjoyed enough, or I think they voted or something? I got to do an extra minute. [laughs]

BH: [laughs]

MP: So I got up to three minutes of stage time. [laughs]

BH: Nice.

MP: But I loved it and I got up and I did it. I mean obviously everyone's terrible when they start and it's terrifying but I gave it a go and I enjoyed and people seemed to enjoy it, right? And so... that encourage me, I was like, you know, I can do this, right? And you know, carried on from there.

BH: Did you have a level of confidence and persistence that this was gonna happen or do you think if that night and that had tanked and things had gone badly at the start it might have all gone a different way?

MP: I would have persisted. There's a problem with stand-up in that you need to have a certain amount of self-delusion to persist despite all evidence to contrary. That is sadly, there is a lower threshold. There's no upper bound, and so some people get into it 'cause if you haven't got enough self-delusion you won't persist. You'll give it. But if you got too much and you never get any good you just get stuck in this loop of doing terrible gigs. So thankfully I was delusional enough or... you know, adamant enough or you know... I'm a finisher completer, I was like I'm gonna do this and so I think I would have definitely persisted 'cause not everyone finished the course. People dropped out of doing even the stand-up course which was quite a nice environment. I was like I'm gonna finish this, I'm gonna do the final show, I'm gonna do some open mic nights to give it a go, but... I would've very quickly stopped doing it and just taken my transferable skills off to do something else if I hadn't got a good reaction reasonably quickly...

BH: Mhm.

MP: And thankfully within... a year... I was doing... proper gigs. I think six months in I got my first, still unpaid, but first actual booked spot to come and be

a comedian on a show and I think if I hadn't gotten that reasonably quickly I probably would've packed it in.

BH: Jumping forward a bit, you've now got, you know, Festival of Spoken Nerd, and all the different things you do on Youtube and [chuckles] like you do a million different things and it's almost like this huge empire now. Was this the vision? Are you now living what you thought back then? Or were you thinking you'd just be like a comedian who goes to comedy clubs and maybe will one day get on TV? Or is what you're doing now what you were aiming for?

MP: None of this is the plan.

BH: Right.

MP: But it is what I was aiming for. So my original vision was just picturing... I was like oh wouldn't it be great if I could go to a pub and do a talk about maths and people would come along and watch it? Wouldn't that be incredible. And with Festival of Spoken Nerd, that's now what we do. Right? We've got our own night, An Evening of Unnecessary Detail in London and we tour around, I've done my own tours, and so I can still remember me as a teacher picturing this tiny pub with like me on the stage with like a flip chart or something doing some interesting bits of maths, thinking oh wouldn't that be incredible? And that I've achieved. I didn't... everything else has kinda grown up around it the... I do too many other things... have all just been me going, oh wouldn't that be fun! So, I kind've had a vague vision but I never had a plan.

BH: How much are you driven by just like being a show off and wanting to be funny and make people laugh and the buzz that that gives you. And how much is there this kind of altruistic mathematics, the world must know the importance of, you know... which is driving you?

MP: It's probably fifty fifty. When I talk to university students or academics

about outreach... and I say why do you do outreach? Why do you want people to know about your subject? You tend to get the worthy answers of, oh it's important or I'm publicly funded, I should tell people, or you know a numerate and scientifically literate society is useful, which is all very true. But I'm also like, it can just be fun. And so I think it's pretty even, maybe it's sixty percent fun, forty percent useful. Where I love performing, I love doing the shows, but... I do make a rod for my own back by insisting that I... put actual maths content in the shows. But... It would be a bit hollow and pointless otherwise because comedy's great but... you make people laugh and then they walk away and that's it right? And at the end of your life what have you... I mean you've made some people laugh which is wonderful? But then, you know, that's it. And I was like, no the reason I got into teaching as well as enjoying it was I liked seeing people enjoy and I can do some good PR for mathematics and I can get more people into it and more people... can enjoy their maths lives and so... I think it's a pretty even balance. Particularly I still do a lot of shows for teenagers, which I could easily not do but I think that's super useful.

BH: Are you suggesting there are things... opportunities that you... would not take because of this stand your taking? Are there like things that have come to your head or have been offered to you that you've said no because... you want me to dumb it down too much or...?

MP: Sort of. I've... [pause] don't do... much... [pause] TV... but that's because [pause] the stuff that comes up I'm like [groans] right? And I'm never get offered the bits I wanna do and also TV's dead.

BH: But still contact Matt's agent if you... [laughs]

MP: [stutters] Jo Wander. Joe Wander Management.

BH: [laughs]

MP: And but... but... it's more that... when I'm writing a comedy show I would be disappointed in myself if I didn't put actual content into it, but I think that's a good challenge. Like constraints make... the creative process more interesting and I like that constraint. Yeah I would be disappointed and not satisfied if I didn't do it. So I don't think it's so much me turning down opportunities. I'm probably inadvertently shutting off opportunities. Like the number of people who are in TV or whatever, who've come to see a show and... gone... yeah... but... [pause] it would never work on TV. Often a direct quote. And that's fine, right? Because they come and they look at that and they go, yeah it's obviously for a niche audience. And I'm much more happy doing that. I mean obviously a fraction of a fraction of comedians go on to actually be successful in terms of TV, so I'm not saying like, I turn down television, right, but I've picked my niche and I'm having a great time in it and it was definitely could be seen as an astute career move to pick on one little demographic and do it well but also I think it's much more rewarding.

BH: You do perform live in front of some pretty big audiences in the scheme of things but obviously those audiences aren't as big as say the people who watch the Youtube videos...

MP: No.

BH: ...that you're in. How do you compare the satisfaction or the thrill you get from doing like a live show with real human beings laughing out loud and you can smell them and you can hear them and that... to a Youtube video you make that might have two or three million views but...

MP: It's surreal. Because I... last year did a small bit on a show at the Royal Albert Hall. It was this big space extravaganza and... Spoken Nerd, we went out and did like a ten minute bit in front of five thousand people with Chris Hadfield, like, absolutely phenomenal.

BH: I was there. I was there.

MP: Exactly. Peak of the career, right? And... you know were one of those... five thousand. You were a member of the five kilopeople that were there.

BH: [chuckles] yeah.

MP: But directly before that I was like oh I've gotta get... this Youtube video I wanted to do out. I know I'll zip over to Hyde Park which is like the park just near there and I'll quickly film it with the GoPro and I'll come back and I can do an edit because our sound check was so early. 'Cause we were like the least important people on the bill. That I had a big block of time. So during that time after the soundcheck, which was like honestly we were there eight in the morning. I then run over to Hyde Park, film this thing on a GoPro, came back, uploaded it and before I went on stage it had had more than five thousand views like way more, and a bit of me is like, oh I've just had you know... ten times the views on a thing I just banged out on a GoPro, which don't get me wrong I love doing, but yet... my focus is on this crazy going out in front of thousands of people and you're right it is... different with a live audience. But then, is that just because it's fun for me? Or is that because... is it important to have live... events? It's an interesting one and... I have a real fractal approach to maths communication. You need to have it at all different scales. Like its maths all the way down on every possible scale, so you wanna have big live shows and small live shows and big videos and small videos and... 'cause the level of engagement and the type of engagement is different. I personally would miss any one aspect if I didn't do it. Like, you're right the buzz you get off the live show is incredible. You don't get the same buzz from looking at a number on a Youtube count and go, oh! And then you try and... you're like what would three million people look like? And you're like that's an insane.

BH: Yeah.

MP: But they've watched some other video and they'll watch a Numberphile video, then they'll watch some other video...

BH: But also rightly or wrongly like the stakes are higher for some reason in our heads when there are other living human beings in the same room as us.

MP: Isn't that crazy?

BH: Because I'll talk to people saying can you help make a Numberphile video for me and they say I can't possibly help you make a Numberphile video, I've gotta give a talk next week to fifty people. And I have to spend a week preparing that talk and part of me wants to say to them. Are you insane?

MP: Are you insane!

BH: Like if you do a video with me a million people are gonna watch.

MP: Have you run the numbers!

BH: Yeah. But... yet I'm exactly the same. If I was giving a talk to fifty people next week it's all I'd be thinking about.

MP: You'd be really focused, yeah.

BH: So it is...

MP: It's just our humanness isn't it?

BH: So speaking of modes of communication... let's talk about books.

[pause]

BH: You're just about to release your second?

MP: This is my second book.

BH: So the first one...

MP: Yep, Things to Make and Do in the Fourth Dimension.

BH: In which you misspelled my name.

MP: I do... only in one edition! And I genuine... you know I'm gonna print you out the email where I sent in the acknowledgements 'cause it was original spelt correctly and they messed it up, which was very disappointing.

BH: Well for that reason... we're gonna talk very little about that book.
[chuckles]

MP: We're gonna move right on. Right.

BH: To the new one.

MP: To a book about mistakes, 'cause I figured you know what if I'm gonna make mistakes I'll do a whole book about it. And so actually just literally today as you know...

BH: Yes.

MP: ...I picked up the first copies ever printed.

BH: Hand it over.

MP: And so I'm going to ceremoniously hand across, Humble Pi: A Comedy

of Maths Errors by Matt Parker. You are the first person other than me to be given an actual final copy of this book.

BH: So a bit a foley work then. Here's what the book...

MP: Here it is! This is what it sounds like. [book pages shuffle]

BH: That's me opening it.

MP: The audiobook's just that for the hours.

BH: I'm not just saying this Matt. I honestly really like the look of this book.

MP: It's nice isn't it?

BH: I like the cover, that is because I'm a bit of a plane aficionado. And the front of the book is a plane.

MP: It's a picture of a plane with the wings are on the wrong way.

BH: Yeah, so.

MP: I did ask when they pitched this cover idea to me. 'Cause with the design they come up to... it wasn't me... and I was like that's great, I said, ah, but can it be a Boeing 787 or can it be like... 'cause there are actual planes in the book. Can it be a, you know, a BAC One-Eleven and they're like nope! It's gonna be this made-up plane or I don't know if it is an actual plane because that's the image they had the rights to. But they did a really nice job with it. I absolutely love the design.

BH: It's a beautiful... tell us what the books about.

MP: It's just a lot of stories about maths mistakes. 'Cause I wanted to write a book about how maths is important for our modern society. Everything, finance, economics, medicine, engineering, you know it, it's based on maths. But the publishers are like, well you gotta make it interesting, why are people gonna read a book about why maths is useful? And I said oh, what if I told it through stories of when it goes wrong. 'Cause it's a great excuse to talk about the maths in the context of it went wrong this one time and normally it doesn't. And they're like, ah people love reading stories about disasters! Go for it, right? And so that's how... 'cause obviously there's a lot of people into maths who read stuff I write and watch the videos and I was like how can I hit a bigger audience and so a book of maths mistakes and this was announced about when the Parker Square video came out and everyone was like, that's clever marketing and I'm like... that's totally coincidental and... I have put a lot of plane stories in there and no one dies. [pause] So...

BH: [laughs] Okay.

MP: The trouble is with disaster problems, particularly engineering and medical ones, people die. And... you can't for a so-called comedy book about maths I can't... every second story can't be and then everybody dies. So [chuckles] I've rationed the stories where everybody dies and none of the aviation stories involve any death. Everyone survives in all the aviation... so if you're scared of flying, it's still a bit terrifying what happens but it's always okay.

BH: You know the first thing I wanna do in this book?

MP: What? Read it thoroughly from the beginning? I mean that would be how I...

BH: No.

MP: Are you checking the acknowledgements!

BH: Yes.

MP: Okay. Well fair enough, fair enough.

BH: I do not expect to be acknowledged but if I am... I'll be looking for spelling.

MP: I go through and I give everyone who contributed something or helped me fact check something or... have enabled my career in some way get a reference in there.

BH: Oh! You've done it!

MP: You're the last line.

BH: The Parker Square is thanks to Bradley Haran.

MP: [laughs]

BH: Consider this a sign of my appreciation, mate. Mate indeed. [laughs]

MP: It's just my little way of saying thanks, Brady, for the Parker Square and all you've done for me.

BH: You've Bradleyed me.

MP: I well... it... [laughs]

BH: [laughs]

MP: It felt deeply appropriate... as a sign of...

BH: Yeah.

MP: ...a sign of my thanks.

BH: I'll tip my hat to that.

MP: I'll get it fixed in the... again as tradition dictates [laughs]

BH: Ah!

MP: I'll get it fixed in future editions.

BH: So this... so...

MP: So only the hardback when it goes to paperback I'll get it flipped over.

BH: So people, I'm gonna say this now 'cause Matt has helped Numberphile so much over the years, I owe him so many favors 'cause he's been in so many videos for me. If you buy a hardback edition, a Bradley edition, while they're available, and you ever cross paths me. I will sign it as Bradley.

MP: That's very generous.

BH: Which is something...

MP: 'Cause you!

BH: ...normally refuse to do that.

MP: You refused to do that on the previous book.

BH: Yeah. Yeah. So if you ever come to me with a Humble Pi hardback edition by Matt Parker, I'll sign Bradley Haran on the page.

MP: You'll sign Bradley... wow! And if you buy the hardback through Maths Gear, I sign them all before they go out.

BH: Mhm.

MP: So you can get a double signed...

BH: Double signed.

MP: You gotta hunt down... Bradley afterwards [laughs].

BH: Right. I also wanna know if, for your author picture in the paperback edition you're gonna... lose...

MP: They didn't update it! So it's still me with hair.

BH: You have a lot of hair in that picture.

MP: It's not my new streamlined look.

BH: I don't even recognize you in that picture.

MP: I know. I looked at that and went [tsks] aww look at that young optimistic fella. That photo was taken in 2011.

BH: Wow.

MP: How terrifying is that?

BH: Look at that, fresh faced.

MP: But I was also quite pleased because in there I talk about the Civilization mistake where Gandhi... as soon as you get nuclear weapons in the first Civilization game he started nuking everyone and that was a mistake in the code and I love those sort of things that roll over and calculation errors in code. But in all future editions of Civilization, they kept that mistake in as a reference to the original error and so I thought [laughs] I would keep the mistake in out of respect for the first genuine error.

BH: There are many things I wanted to talk to you about and we haven't got time, like so you will come back and do another?

MP: Absolutely.

BH: Another podcast, soon?

MP: As you know I will show up and do a podcast or a video anytime you ask.

BH: Thank you very much, 'cause there is genuinely is so much more I want to talk to you about but there's one thing we have to talk about in this episode and we've already mentioned it but I know people are gonna wanna hear you talk about it and that is the Parker Square. So for people who don't watch Numberphile videos, how would you give an executive summary of the Parker Square story and how it rose to fame?

MP: So the Parker Square...

BH: You don't have to go into all math. I'll link the video so you don't...

MP: You can watch the video...

BH: Yeah.

MP: And I did this video and my message from the video was, give it a go. Just have a go in maths. And actually that's something that comes out in the book. I'm like everyone thinks maths is all about getting the right answer. It's not. Most doing of maths involves getting it wrong, getting it wrong, getting it wrong. So I had a go at finding this magic square. It wasn't that good. You called it the Parker Square, it was all very funny.

[gentle piano music]

[Numberphile clip plays]

MP [in clip]: My find.

BH [in clip]: Has it got a name?

MP [in clip]: No it hasn't got a name. I don't wanna call it the Parker Square! Because it doesn't work properly, it would be like, oh that's a classic Parker Square. Or if someone were to do something that's almost right but not quite and they go... [tsks] that's a real Parker Square kinda move. So I'm not calling it the Parker Square!

BH [in clip]: Matt... you know what this video's called?

MP [in clip]: I've called it... oh for crying out loud. [laughs]

BH [in clip]: [laughs]

MP [in clip]: The first time you name something after me and it's something that not quite right. You know what! Maybe it'll become the mascot [hits table]

for giving things a go!

[gentle piano music plays]

MP: And there was a wonderful moment, do you remember after we stopped filming and we were both just like... I was just like I can't believe this has happened and you looked at me and said, I can not put the video out if you want. And I was like... it's fine.

BH: Ah yeah.

MP: Number one, it's funny.

BH: Yeah.

MP: And number two, I think it's an important message to give it a go and you were like, you'll never hear the end of it. And I'm like no it's fine.

BH: [laughs]

MP: And you said...

BH: No, you will never hear the end of it.

MP: Exactly.

BH: I'll make sure of it! [laughs]

MP: Yeah. But no and then you said I won't make a big deal of it.

BH: [laughs]

MP: I'm like oh good good good! Right? And then there was a range of t-shirts!

BH: [laughs]

MP: So I didn't fully know what I was agreeing to at the time so... I say it's a mascot for giving it a go. Other people say it's... a mascot of when your best just isn't good enough.

BH: Yeah.

MP: So I think it falls somewhere on that spectrum.

BH: It's kind of starting to morph into a mascot for failure and getting things wrong, rather than noble effort but...

MP: Exactly! Right.

BH: Yeah.

MP: So I keep trying to bring the noble effort back to the table and other actors... I mean I don't wanna point fingers [laughs] seem to use it as a shorthand... [laughs]

BH: [laughs]

MP: ...for hilarious failure.

BH: How much does it like... 'cause obviously my exposure to your life is limited to Numberphile and my...

MP: Yeah, yeah.

BH: So to me the Parker Square and Matt Parker have become very very closely entwined and I can't upload a video with you without Parker Square jokes and... how much does it follow you around, like, you know?

MP: Yeah, a non-trivial amount, Brady!

BH: [laughs]

MP: Um.

BH: Like you get t-shirts at gigs?

MP: So... so I get the t-shirts. People will show up wearing t-shirts to gigs. Which I love, right? And everyone who does I then take a selfie with them one where I'm like, hey Parker Square [happy voice] and one where I'm like, oh Parker Square [grumpy voice], right? And so they get... you know, I love doing that, right? That's really good fun. The fact that people wear the shirt is great, 'cause I sign a lot of calculators that's a common thing I do.

BH: Yeah?

MP: And quite a few people'll ask me to sign their book or their calculator and draw a Parker Square into it, right?

BH: So you've memorized it properly? [chuckles]

MP: [sighs] Yeah. I keep thinking I should get it wrong each time and [mutters]

BH: [laughs]

MP: Right, and so I sign a lot of Parker Squares. It's a good go to joke when I chat to someone. 'Cause a lot of people will recognize me in the street and instinctively go, oh! Hi. And then they'll realize that they've done that without a plan, right? 'Cause I appeared out of nowhere. They're just going about their shopping or whatever, they're on the train, suddenly someone from Youtube jumps in front of them, and they're like oh hey you're that guy, how you doin'? And then they're like... I've got no follow on plan, now I'm socializing with a human that I wasn't expecting to. Right, and so some people are just like, bye! And they run away again, which is also adorable. There are some people who are like, oh hey, Parker Square, right? That's there kind of go to, so...

BH: Yeah.

MP: For better or for worse... it follows me around. But in a very nice way.

BH: If you could go back in time, you can't [laughs]... but if you could go back in time...

MP: No.

BH: Would you not do that video? Would you think, oh it's just a bit of a...

MP: I would happily put it out, you know, I get the correct amount of annoyed but I like the fact that people have embraced it as a memey kind of concept. And I like the fact that... it to some extent... reinforces the notion of giving it a go. The square is mentioned at the very end of the book, 'cause I knew some people would expect it to be in there.

BH: Yeah?

MP: And I hold off, hold off, hold off, it's only like in the final pages and actually I've got a... there's a square of photos of people wearing Parker Square

shirts at my shows, right? Which I thought would be kind of fun to put there in the end.

BH: Here we go.

MP: So there's a Parker Square of Parker Squares.

BH: So, minor spoiler but if you do have the hard copy, which I hope you've all gone out and bought by now, you just have to flick to the back to the book to... [pages shuffle] page... nine.

MP: Page nine [laughs] yeah.

BH: Page nine?

MP: Page nine. [laughs]

BH: Which is also a bit of a spoiler to the numbering system in this book.

MP: Oh! That took so many emails to Penguin but they finally [gentle music fades in] agreed to let me have a book with reverse number page numbers. [music fades up]

BH: There we go.

MP: So they go backwards.

BH: And there is indeed, there is a big montage of pictures of Matt with people wearing Parker Square t-shirts which... [music fades up]... which yeah I must have a little chat to Penguin about royalties on that [laughs].

MP: [laughs]

[music continues]

BH: Brilliant. Thanks so much for your time, again...

MP: My pleasure, I will be back for another podcast. We will finish off my life story.

[music fades up]

BH: People if you'd like to get hands and eyes on a copy of Matt's book, the best way is via his website Maths Gear and I'll include in a link in the notes for the show. That'll get you a copy signed by Matt and it also means you'll get your hands on it perhaps before the book is even officially released in your particular part of the world. More details in the notes, go and have a look. [music continues] My thanks also to the Mathematical Sciences Research Institute for all its support of Numberphile and a double helping of thanks to Meyer Sound, that's a Berkeley based audio company which kindly made this particular episode possible. Again, links to them in the show notes. [music continues] If you'd like to find out more about Numberphile, maybe even support us yourself, check out the links and all sorts of good stuff at Numberphile.com. I'm Brady Haran, and I'll be back again soon with another episode of the Numberphile podcast.

[Music fades out]

