Nikki (N) & Cheryl (C) tutorial (7'46")
Solving a problem with a mortise & tenon carpentry joint
Recorded and Transcribed by Trevor Marchand

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C: This piece feels like its…
N: ... Could it be on this side somewhere…?
C: Right, have a look at that. If we look at it from the other side. So that's… that's lower down. And so when I press on there. Remember I said this looks like it's tilting?
N: Yeah
C: It clearly is, isn't it? So if we pull these apart, let's make sure it isn't one wonky piece or another wonky piece; that it's just a wonky joint. So the pieces on their own aren't moving. The pieces together are only OK up to there. Then they're having to be pushed a little, pushed a little. That's why they're not coming together on the shoulder… because, if you look at this bit you can see it's twisting over. So let's make them happier together. Let's start off with where they stopped being happy. That already isn't… If you look… The problem with this joint is that you can't see through from the other side. So it's not like the bridle where it's all very open. It's all very closed in and difficult to judge. If you look at that… Feel that. And push that just lightly. It feels happy, doesn't it?
N: Yeah, it does.
C: It feels fairly happy. Now, feel that and see what that feels like. Can you feel that there's…
N: At the end, yeah.
C: …Yeah, there's some squashing, isn't it? Whether it's the top bit, or the bottom bit… I would say if you look at that, it looks like it might be more the bottom bit, doesn't it? Certainly on the outside there. That looks like a bit of a gap.
N: Yeah, because it lifts upward…
C: Yeah, so it could be in there or it could be on the bottom of this. Let's have a look at the bottom of this first…
N: Yeah.
C: … just because the bottom of this would be a whole lot easier.
N: Yeah, yeah.
C: Looks good there, at the back. It's slightly high there. But that's right at the back where we know we don't have the problem. So we can see it's high at the back, there. That looks massive. When you look at the light at this end you think 'God, that looks really massive'. But in reality, what is that…? It's probably about…
N: I wasn't sure if I (inaudible), but maybe that's…
C: If you look at that pencil line in the back... Can you see that there's a difference between (inaudible), and a difference between that line. So we could say, below that point here. But because it was already meeting resistance quite early on…
N: Is it that high up there?
C: We know that's not the problem straight away… so it might be all the way along.
N: But if it is then…
C: Very slightly at the front… going to a bit more and a bit more. So we've got something higher here than we want it to be. And if we look here… That' obviously a mistake, that line, isn't it?
N: Yeah.

C: Yeah. But if we look here, we've got a little bit of gage line…, which I would expect to see all the way around. Because I can't see a gage line all the way around… I can ... I can't see it there, but we know that back to be higher than the front. So what do we do? If we look at it like that… that's definitely higher …
N: Yeah.
C: …at the back than the front. So is it that your gage lines are wrong?
N: I don't think so…
C: Could be. So what… Or is it that you've lost your gauge lines on there and so now you'll need to lose them on there, because it's not fitting on this side?
N: Yeah, I didn't know… I didn't do it... the lines I made are quite thin, so they're ...if not… maybe too small .... So I had to take them passed the lines ... too tight.
C: Yeah… The funny thing is… is it's high on that side. If you look at that side, that's the side that's going in Okay. So, if it's meeting some resistance there, it must be in there where we don't want it to be.
N: That's a good way of finding out.
C: Yeah… If you've got a pencil that's either really, really sharp or you've got one of these little skinny ones, if you run it in like that, and it hits a bit of resistance – that's exactly what this is doing, isn't it?
N: Okay.
C: …Meeting some little bit of resistance. So if I slide the pencil in like that I'm hitting what feels like a brick wall, but what is on fact only like a tiny bit of fluff.
N: You could use the ruler as well, because it's like wider…
C: You could do it…Yeah, exactly. You can do it with a ruler, because that's like using a completely blunt chisel, then isn't it…?
N: Yeah, yeah.
C: It's not doing any damage but it is showing you…
N: Yeah
C: …where the pick-up point is. And it's there, really. To look down into that and be able to say what's high or low at the back would be quite difficult, wouldn't it?
N: Hmmm.
C: Because we've got a load of shadow... And if we do it like that, you can't tell what's higher or lower in that very easily, can you?
N: No.
C: You'd want it that way to be able to tell, and as soon as it's that way you can't…
N: See into it.
C: …get any light. So it's almost like you'd want to shine a light down there...
N: A head torch!
C: … to be able to see. On the other hand, we've picked it up. We know where it is. And now, if we use… if we can pick it up with this…
N: Yeah.
C: …we can pick it up with the chisel without even being able to see it. So, we know it's on this side, not too far in. Maybe something a little meaty? If I did it on there, I can see what I'm doing…
N: Yeah.
C: Well, not that anything much is happening ... I can see what I'm doing; but even if I don't look it's still doing the same thing because it can't scoop out.
N: But you can't do that in there.

C: Well we can a little bit. So if I've got… if I've got my thumb there…
N: Yeah.
C: And my fingers underneath. And I'm squashing the chisel down flat.
N: Okay
C: You can a little bit, as long as you're holding the chisel down as close as you can to the top and pressing down as hard as you can, onto that surface… it will then pick up anything higher than that. Try it! Try it, and see. You're looking for something about *there* inside. Can you feel it?
N: Yeah
C: Good! It is *there*. We've seen that it's *there*. And the chisel can pick that up.