

## **Who, When, Wow! Mystery Edition**

### **Fairy Circles**

**Carly.** Psst! Hey You! It's me Carly Q! Welcome back to your favorite secret podcast! Today I went to the desert to check out a mysterious, oddly-shaped phenomenon, and let me tell you, it was FULL of surprises. We've got bugs, fairies, strange circles and more, so stick around. I'm Carly Q, and this is Who When Wow, Mystery Edition!

(THEME SONG)

**Carly.** When I got to the office this morning I was very eager to head right down to the basement.

**Amber.** Gooooo morning Carly Q!

**Carly.** Hi Amber! Can't talk right now, see you soon!

**Amber.** Okay. Have a good day.

**Carly.** And my hustle and bustle was NOT just for my love of the work. No, I had an idea last night about this whole mystery letter situation, and I was desperate to start looking into it downstairs.

**Carol.** Hey Carly Q! What's up?

**Carly.** Good thanks Carol! You too! Talk soon!

(Soundbite of basement door closing.)

**Carly.** Perhaps you remember that I found an anonymous letter on my desk saying that someone was onto us. They knew that Lewis and I were using the elevator to travel through time. But, I still have NO idea who wrote it! Who could have sent it? And WHY? What do they want? And why won't just come out and ask for it to our faces? But even though I didn't know "who" or "why" I DID have an idea about HOW they might have found out about us! So when I got down to my desk, I told my rat friend Nibbles about it right away.

(Soundbite of rat squeaking.)

**Carly.** Do you think we've been bugged?!

(Soundbite of rat squeaking.)

**Carly.** Yeah! You know, a BUG! Like a little surveillance device, a microphone or a camera or something? In spy movies they always call them bugs. And yes, I may have watched a heart-stopping spy thriller in bed last night that gave me the idea.

(Soundbite of rat squeaking.)

**Carly.** I don't know where it would be! That's the question! But if someone did place a bug down here, that could be how they know what we're up to!

(Soundbite of rat squeaking.)

**Carly.** Exactly! Let's look around and see if we find anything! We immediately started our search. I looked in, under and all around my desk, while Nibbles started on the walls and ceilings.

**Carly in the background.** Nibbles it's Stapley! Aha! Nope, just a regular stapler.

**Carly.** But before we'd gotten very far,

(Soundbite of footsteps coming down the steps.)

**Lewis.** Oh Carly QUUUUU!

**Carly.** I'd been debating whether or not to tell Lewis about this, since I was sure he'd be dismissive or rude about it. But when he walked in on me taking apart my keyboard, I decided to just come clean. And to my surprise..Lewis I think my office is bugged.

**Lewis.** Huh! Bugged! Not a bad theory!

**Carly.** He was actually kind of supportive.

**Lewis.** But, like have you actually found anything yet?

**Carly.** Emphasis on kind of supportive.

**Carly.** Not yet. But I do have Nibbles on the case too.

**Lewis.** Weird to think someone could be spying on us, right now. Hey if you're listening to us, this was all Carly's idea! She made me come along!

**Carly.** Lewis! Stop that.

**Lewis.** I'm totally kidding. (quietly) ..sort of.

**Carly.** Will you just make yourself useful. Why don't you help us? Lewis helped me finish checking out the office, and just as we gave it the all clear.

(Soundbite of a thumb drive comes down the vacuum tube.)

**Carly and Lewis.** A new time-sealed file!

**Audio File.** Event: (BEEP) 2022 (BEEP) Namib Desert, Africa (BEEP) fairy circles.

**Carly.** Fairy circles?!? What an utterly delightful concept.

**Lewis.** You know what they are?

**Carly.** Well no but sounds fun. I pulled out H-dad, my handheld digital assistance device.

**H-dad.** H-dad, thanks for pressing the power button!

**Carly.** And plugged in the clues from the file. 2022, Namib Desert, fairy circles.

**H-dad.** Fairy circles, also known as arid grass formation, are barren spots in the desert where no plants grow. Found in the Namib Desert of southern Africa, these circles are typically seven to forty feet in diameter, and ringed by grass along their outer edge.

**Lewis.** OK. So bad lawn care in the desert. Why is this a thing?

**H-dad.** Fairy circles are similar but distinct from fairy rings, which are round patterns of mushrooms found in forests.

**Carly.** Okay these fairies are BUSY!

**H-dad.** Scientists have yet to conclusively prove what causes fairy circles, and continue to debate various hypotheses.

**Lewis.** Such as?

**H-dad.** Analyzing. Analyzing. Analyzing.

**Carly.** I mean obviously they're caused by fairies right? Otherwise what, maybe the desert just has little bald spots like my Grandpa? Or if it really isn't fairies well then it's gotta be aliens, right?

**Lewis.** Maybe aliens,

**Lewis & Carly** Pretending to be fairies?!

**Carly.** OK. I'm pretty sure you're mocking me, Lewis but that's actually an incredible theory.

**Lewis.** Seriously?

**Carly.** Yes, whatever. I have a surveillance sweep aka bug hunt aka the great de-bugging of the basement to complete, so unless you're gonna keep helping.

**Lewis.** Yeahhh I'm gonna go. Annnnd, AHEM, I WONT be back anytime soon so DON'T plan on seeing me at lunchtime for any kind of adventure. Just, you know, maybe for book club?

**Carly.** Lewis winked at me. He was using code words in case we were bugged! It was thrilling!

**Lewis.** Bye Carly Q.

**Carly.** Farewell to you Lewis. See you at "Book" "club". After Lewis left, Nibbles and I got back to our search. But between a slew of distractions,

(Soundbite of rat squeaking.)

**Carly in the background.** Nibbles what is that? Crumbs from an old piece of pie in the kitchen cupboard? No don't--okay, you're already eating it.

**Carly.** And me having to get some actual work done, we didn't get very far.

(Soundbite of rat squeaking.)

**Carly.** Nibbles told me she's not a big fan of the desert, so she offered to stay here during lunch to keep up the bug hunt. And just then,

**P.A. Voice.** Attention, Butthead employees, it's Mucho Mango Macaroni & Cheese Day! Spice up your lunch with a side of fruit or vegetable flavored mac & cheese.

**Lewis.** That's lunch! Time for BOOK CLUUUUUUUB!

**Carly.** I grabbed H-dad, and we took off for the elevator.

**P.A. Voice.** BUTTHED cafeteria not responsible for adverse reactions to dairy. We will not tolerate lactose intolerance.

(Soundbite of elevator ding.)

**Carly.** Odie!

**Odie.** Hello you two. What have we got today?

**Carly.** A fairy-licious mystery set in the sand dunes of Africa! Ever heard of fairy circles?

**Odie.** Barren spots in the Namib Desert?

**Carly.** Nailed it!

**Lewis.** How does she always know?

**Carly.** Because she's the OG time traveling master! Odie any idea what causes these fairy circles?

**Odie.** Let me see the file on your H-dad. Hmm, yes I do remember hearing about this. Unfortunately, the time seal on this event will prevent me from sending you to 2022.

**Carly.** There were other dates on the file though, right?

**Odie.** Indeed, it looks like I can send you to ten years earlier, when scientists at a research station were working to identify the cause of the fairy circles.

**Carly.** Great!

**Odie.** Then let's remember our time travel rules. No changing the past, be back by the end of lunch time, and?

**Carly.** Pack an extra pair of socks in case your first pair get sandy?

**Lewis.** Bring lots of sunscreen?

**Odie.** Yes, yes, and also WATER. You're going to the desert! Don't forget it!

**Lewis.** Good call Odie! I'm bringing my extra canteen!

**Odie.** Then just remember you two: "Mite" doesn't always make right.

(Soundbite of wind chimes.)

**Carly.** Wait what?

**Odie.** Okay here you go.

**Carly.** What does "might" have to do with any of thiiiiiiiiis?

(Soundbite of elevator travel noises then loud thud.)

**Carly.** Whew! Looks like we made it! At least I think we did. (Shouting) Is this Affriccaaaaaa? I'll take that as a yes. And wow, is it hot.

**Lewis.** Glad we brought some extra water. I'm already parched.

**Carly.** Whoa whoa easy. Don't drink it all. We were just outside of a research station, a few small buildings huddled together on an open stretch of desert. But this wasn't any normal desert. As far as the eye could see, the terrain was dotted with what had to be fairy circles.

**Lewis.** That is some weirdly organized shrubbery. What's with all the dirt spots?

**Carly.** It was like a whole sheet of polka dots, extending far off into the distance. It looked like an alien landscape from outer space!

(Soundbite of people nearby talking.)

**Carly.** Lewis, you hear that? Must be some of the scientists doing research here. Come on, let's go see!

(Soundbite of footsteps walking.)

**Carly.** We walked around to the front of the main building, just as a pair of scientists were coming out. Hello there!

**Otto.** Hallo? Who are you two?

**Stefanie.** Oh these must be the documentary film makers, Otto! Coming to make their film about the fairy circles, ja?

**Carly.** Uh, yep! That's us. We are professional documentary film makers here to get some footage for the very professional documentary film we're making.

**Stefanie.** Excellent! But wait, where are your cameras?

**Carly.** Oh.

**Lewis.** Uh.

**Carly.** We left them back at the,

**Lewis.** Camera shop!

**Carly.** They're getting fixed. Needed a tune up!

**Lewis.** You know how it how it is, all the sand out here getting in the camera gears.

**Carly.** So much sand. So many gears!

**Otto.** Okay. Well, you would probably like to hear about our research then, yes? My colleague Stefanie and I are here with a group of scientists studying what causes the fairy circles.

**Carly.** Right! And is it fairies?

**Otto.** (laughing) The curly-haired American woman is very funny, Stefanie!

**Stefanie.** (Laughing) Ja, Otto! Such jokes, we love jokes.

**Otto.** But the answer is NO. It is not fairies. We believe it is termites.

**Carly and Lewis.** Termites?!

**Otto and Stefanie.** TERMITES!

**Stefanie.** Here, we can show you.

**Carly.** They lead us into the sand dunes out away from the station.

**Stefanie.** Our team is led by Dr. Norbert Jürgens, an ecologist based at the University of Hamburg in Germany. He's back there right now, but we don't need him to show you our termites. Follow us.

(Soundbite of walking through sand.)

**Carly.** Oh boy, we've only been walking for five minutes, and I've never been so hot in my life.

**Lewis.** Yeah, my water's almost gone already. How did that happen?

**Carly.** We were maybe a quarter mile out into the desert when we arrived at a large fairy circle. There was grass and some other scrub growing all around it, but all the growth stopped at the hard edge of the circle.

**Stefanie.** Here we are. These are the fairy circles.

**Lewis.** OK. These circles look totally fake. They look man-made!

**Otto.** They do! But if you look closely, you will see that they are actually TERMITE-made.

**Carly.** We got down on our knees to have a closer look. Sure enough, there in the sand were little brown spots moving about to and fro. It was like a whole little world!

**Lewis.** Termites!

**Stefanie.** Sand termites, to be precise. According to our theory, these termites damage the roots of grasses that grow in the circles after it rains. This makes the plants outside of the circle grow more, which the termites then feed off of.

**Otto.** These termites are creating their own ecosystem, much like your North American beavers use dams to engineer their local rivers and waterways.

**Lewis.** So the termites are just busy little beavers, shaping their environment to provide more food?

**Stefanie.** That's our theory, yes.

**Carly.** Aww look, this one likes me!

**Lewis.** You can introduce him to your friend, the rat.

**Carly.** Yeah maybe I will. One of the termites had crawled into my hand.

**Otto.** The termites are not always so friendly to newcomers.

**Carly.** What can I say? I'm very welcoming!

**Lewis.** So that's it then? It's definitely termites causing the fairy circles?

**Stefanie.** There are some other possible explanations. Poisonous gasses, noxious bushes, fungi. All of these could be killing the plants that would otherwise grow inside the circles. But we are focused on the termites.

**Otto.** We've found them at almost every fairy circle we've studied, so.

**Carly.** Ahh! My termite's running away!

**Lewis.** It's a bug Carly, it's just living its life.

**Stefanie.** Curly-haired woman, where are you going?

**Carly.** Sorry, I just, I've become kind of attached! Lewis, come on.

**Lewis.** Uh, we'll be right back.

**Carly.** Lewis came after me as I chased the termite across the sand.

**Lewis.** What's the plan here, take it home as a pet?

**Carly.** Come on, maybe! (calling) Don't you want to come back and be my roommate?

**Lewis.** Carly! What about the fairy circles? Do you think these scientists are right that the termites are causing them? Because these circles are so perfectly round. I can't even draw one that good, and I am the top student in my Art Therapy for actors class.

**Carly.** I'm not sure. I guess their theory seems a little complicated? I mean couldn't the explanation just be as simple as water?

**Lewis.** Right. This IS the desert. Water is kind of key out here.

**Carly.** Exactly. Maybe it's not termites? Maybe the plants surrounding the circles just soaked up all the water?

**Lewis.** Hm. That actually makes sense.

**Carly.** Yeah! Oh, there it is! I lunged into the sand and caught the termite in my closed hands. Found ya. I think I'll call you....Terry. Terry the termite (baby voice) You're a good little termite, aren't you? Yes you are Mr. Terry the Termite. Or Ms Terri. With an "i".

**Lewis.** Alright Terri, Carly? Where are we?

**Carly.** Uh, what? I looked up, and sure enough I had no idea where we were.

**Lewis.** I don't see the German scientists anywhere. Or the research station! Is it back on the other side of that sand dune?

**Carly.** We hustled back the way we thought we came but after 15 minutes we still didn't see the station.



**Lewis.** Carly are we LOST, IN THE DESERT!?

**Carly.** Of course not! We have H-dad! H-dad any chance you can guide us back to the station?

**H-dad.** Negative! Location sensors not calibrated for the desert. You are lost.

**Lewis.** Carlyyyyyyyyyyyyy! Thirsty!

**Carly.** It's okay! I think. Let's go, this way. H-dad have you at least finished analyzing that data yet?

**H-dad.** Affirmative! In 2013, Dr. Jürgens published a paper advocating for the termite theory, which was a major contender for explaining the fairy circle phenomenon until 2022.

**Carly.** Right, the time seal! What happened in 2022?

**H-dad.** A paper was published with a new theory that was much more widely accepted. It claimed fairy circles are caused by an effect called "water stress", plants create the circles themselves and leave "empty spaces in order to save water and maximize their chances of survival.

**Carly.** Wait. So I was right? It really is all about the water?

**Lewis.** Waterrr.

**H-dad.** Affirmative! The study found that after rain storms, the roots of the plants just outside the circles create a vacuum effect, transferring water from the middle of the circles outward.

**Lewis.** Like when you open your office window in winter and the warm air totally rushes out, and everyone yells at you? I mean waterrr.

**H-dad.** Affirmative. Minus the cranky co-workers of course.

**Carly.** So what about all the termites?

**H-dad.** The 2022 paper claims no termites were present at any of their study sites, and there was no evident termite damage to the vegetation.

**Lewis.** So I was right too! Just cause termites are sometimes present at the fairy circles, it doesn't actually mean they are causing them.

**Carly.** Nice! We are getting good at this!

**Lewis.** Well I'm sure glad we got that all cleared up before we die out here in the desert! (crying) H-dad are you sure you can't navigate us back to the research station?

**H-dad.** Negative. Navigation services inoperable. But I would suggest using the elevator key fob button.

**Carly.** There's a key fob button?

(Soundbite of click of key fob and a car beep way off in the distance.)

**Carly and Lewis.** The elevator!

(Soundbite of Carly and Lewis running through desert.)

**Lewis.** I am SO glad we aren't lost forever out here. I use way too much moisturizer to die from dehydration. It's too ironic!

**Carly.** Here it is!

**Lewis.** Oh what a relief! I'd kneel down and kiss the ground if it wasn't, you know, sand.

**H-dad.** Incoming message from BUTTHED HQ.

**P.A. Voice.** Attention Butthead employees: 5 minutes until the end of Mucho Mango Macaroni & Cheese Day. And remember, upset tummies will not be a valid excuse for leaving early!

**Carly.**

Definitely time to go!

**Lewis.**

Let's get outta here!

(Soundbite of elevator travel noises then ding.)

**Odie.** Welcome back you two. How was the desert?

**Lewis.** Pretty good, other than almost getting lost in the desert and dying of thirst.

**Carly.** Oh no! Terry the Termite's gone! He must have jumped off before we got back in the elevator.

**Odie.** Now I know you weren't planning on bringing a termite FROM THE PAST back into the office.

**Carly.** No! Psh, I would never do that. Noo.

**Odie.** Good. Now, tell me about these scientists studying the circles.

**Lewis.** Well, as it turns out, the scientists were wrong, and I was right.

**Carly.** Excuse me?

**Lewis.** Fine Carly was right too. Termites were NOT the cause the fairy circles.

**Carly.** The alternative theory from 2022 was about water stress, and seems much more accurate even if it's not 100% certain.

**Lewis.** Wait a minute. Termite! ter-MITE?!

(Soundbite of wind chimes.)

**Odie.** Mite doesn't always make right.

**Lewis.** That's what you meant!

**Carly.** Of course! You didn't mean "might" like strength, you meant "mite" like termite. M-I-T-E. Because the scientists ended up being wrong about their terMITE theory.

**Odie.** It's true, bugs are very easy to blame, but not everything is their fault. And besides, sometimes the true answer is staring you right in the face.

**Lewis.** Like the water!

**Odie.** Exactly. Alright you two, back to work. Have a pleasant rest of your day!

**Carly.** Lewis I'm proud of us for both being right and I'm proud of us for me being a little more right.

**Lewis.** Well, I don't think that's right.

**Carly.** Lewis walked me back to my desk, where we found Nibbles waiting for us. Well speaking of bugs. Nibbles what did you find anything?

(Soundbite of rat squeaking.)

**Carly.** You searched this place up and down, checked every light fixture, every desk drawer, EVERYWHERE, and you didn't find a thing?

(Soundbite of rat squeaking.)

**Carly.** Well how about that? Maybe we aren't being bugged!

**Lewis.** Yeah, that's starting to make more sense. Most of your conversations are about pie anyway. Not super interesting.

**Carly.** Ok well, it's definitely interesting. And with that it was back to work. What a day! I searched for bugs, made friends with a bug, lost a bug, didn't find any bugs. Lots of buggin' going on, but NOT the kind that spies on you. Looks like we'll have to come up with another theory. The search for the mystery letter writer continues! Until next time, this is Carly Q, signing off. And remember, you never heard this!

