JOURNEY PLANET

the smol issue

Journey Planet - SMOL

October 2023

~a letter from the editor~
~by sarah gulde~

Hello and welcome to a new issue of Journey Planet! My name is Sarah Gulde and I'll be your editor this evening.

I can't remember where I got the idea for an issue about tiny things, but once I did I couldn't stop thinking about it! While so much of sci-fi deals with the BIG stuff, like giant robots and generation ships and galaxies (ooh, guess there's my next issue idea), a lot of it deals with the little stuff, like Fantastic Voyage or nanotech.

We've got some fun contributions about atoms and miniatures and...vampires? You'll have to read the issue to see for yourself! Hope you enjoy the it.

LLAP,

Sarah Gulde

P.S. You can check out my other fanzine, *Star Trek Quarterly*, at https://startrekquarterly.wordpress.com/ or on Facebook.

~letter of comment~
~on issue 74~

Oliver Gruter-Andrew
5/26/2023 11:22:25 pm

My then-girlfriend (now wife of 30+ years) Jacky moved into the spare room in Vince's place in South Wimbledon in the summer of '91 while I spent three lonely months in Kentucky writing soppy love letters every few days and consoling myself with convention-hopping in the Mid West. Upon my return to England i moved back officially to my college digs in Egham, intent on acquiring some kind of degree over the following nine months. But I was very quickly consumed with more distance-ache as the trips between Egham and South Wimbledon were lengthy and often delayed by the idiosyncracies of the railways.

Vince detected (it wasn't hard) our misery and offered that i could stay as much as I wanted. Now, as a penniless student i could not afford to pay rent in two places, and so essentially committed myself to indenture with Vince, which took two forms: one, i had to do whatever his Conchairness required at a moments notice to keep the essential workings of fandom gliding along smoothly, be that stamp-licking, envelope-stuffing, button-making or mail sorting. And two, i had to keep the house clean and tidy.

While the former kinda came with life in general at that point anyways, and the second was in principle ingrained in this son of a German mother, I think Vince and I were both surprised by the sheer intensity with which I dusted, vacuumed, tidied and laundered. No half-drunk glass of juice was safe from my dish-washing enthusiasm unless clung to tightly by its pourer, and even unsuspecting house guests found their socks tossed into the washer if they took them off carelessly.

Of course, as Vince is always one to get top performance out of those in his orbit, he even persuaded Jacky and me to tackle the garage, which had become the repository of fanish odds and ends to make an imperial garbage compactor blush with envy. He had less luck with one of the other residents of the house, let's call him David, who was presented with a charming offer to repaint the hallway while Vince took off on urgent SMOF business for the weekend, and after about three strokes with the brush abandoned the project and told Vince to find himself another minion.

Jacky and I have many fond memories of our years in London, but few as hilarious as those of our time as members of Vince's household in South Wimbledon. We are grateful that 30 years later we can still consider ourselves his friends.

~I like it smol~
~by chris garcia~

I have been fascinated by architecture since I was a kid, but I lived in Silicon Valley, and at the time, there really wasn't much of the stuff around. I mean, there were buildings, a few of them notable for their styling (Winchester House, the Century Domes, the Main Library, Fry's) but mostly they were just buildings built for function and not in a cool Brutalist way.

I got my architecture fix three ways – visits to LA and the buildings of Frank Gehry, taking every architecture book at the library out onto a big table and going through every image (something I still do today) and the various miniature models that seemed to be everywhere.

The first one was in the airlock entering the Community Recreation Center of the Santa Clara Parks & Recreation Department. It was a HUGE (to a 5 year old) model of Santa Clara's own amusement park: Great America. Now, even then, I loved the park. It was populated with the Looney Tunes characters, and with a Bicentenial theme, so you'd see an 8-foot tall Bugs Bunny walking around dressed like Uncle Sam. It was kinda magic when you were at the age when things could still be magical.

I believe the model was 1,200-to-1 scale, but I could be wrong, it was about 8 by 8 feet, so it would be in the right ballpark at that size. It was a model of the park as it looked on opening day, and I would have to believe that

Marriott's, the company that opened it, had it built as a part of the approvals process, and then just gave it to the city. I know one exists for the other Great America, in Gurnee, Il. Even when I worked at the CRC in the late 1990s, a good fifteen years after I first spent hours staring at it while waiting for the arts and craft classes I took in the building to start, I would still stop in front and look at the rides that had come and gone – The Turn of the Century, Willard's Whizzer, The Tidal Wave.

There was another one that always got me, and it was a few miles away. It was at the Winchester Mystery House, in the gift shop. It was another scale model of a place I loved dearly, but it wasn't just a scale model – it was a Gingerbread House.

In 1990, I was at the Century Theatres two to three times a week, and usually, I would get there early and walk across the street to play video games in the Winchester House arcade, or walk through the antique gun collection. No matter what I was there to do, I'd always stop in the gift shop and take a long look at the Gingerbread House.

It was made by Pam Sheridan, and it's not a 100% accurate representation of the massive mansion, but it's clearly a good likeness. In the early days of cellphone cameras, when I carried a flipphone with a camera that produced terrible but fun pictures, I filled up the memory of my phone, twenty photos!, with images of that gingerbread house.

There's a library in the beautiful city of Los Gatos, California. It's a new library, the old one was build in a battle waged between man and mule and I'm pretty sure the mule came out on top. The new library is like most new libraries, light and airy, lots of spaces in addition to places for the books to sleep. What's there's not really is a room for local history or genealogy. They do have a shelfing unit, one of those three foot tall, three-shelves numbers from Uline. On the top, there was a small, cute little model of what 1890 Los Gatos would have looked like. I remember the first time I saw it thinking that it was one of the most accurate models I'd ever seen. The librarian in charge of that section, probably unaccustomed to anyone paying it much mind, walked over and said, "it's the most accurate depiction of Los Gatos ever created, sans the two massive manure piles that were located here, and here. Twenty feet tall, they were."

She even spoke like a prospector!

That's something that models can do, erase the darker sides of history. Sometimes, they do it on purpose, like erasing the manure piles that could block out the sun and stank to high heavens, but other times, it's just because the interesting stuff needs space to breathe and become visible.

As always, place-setting is important.

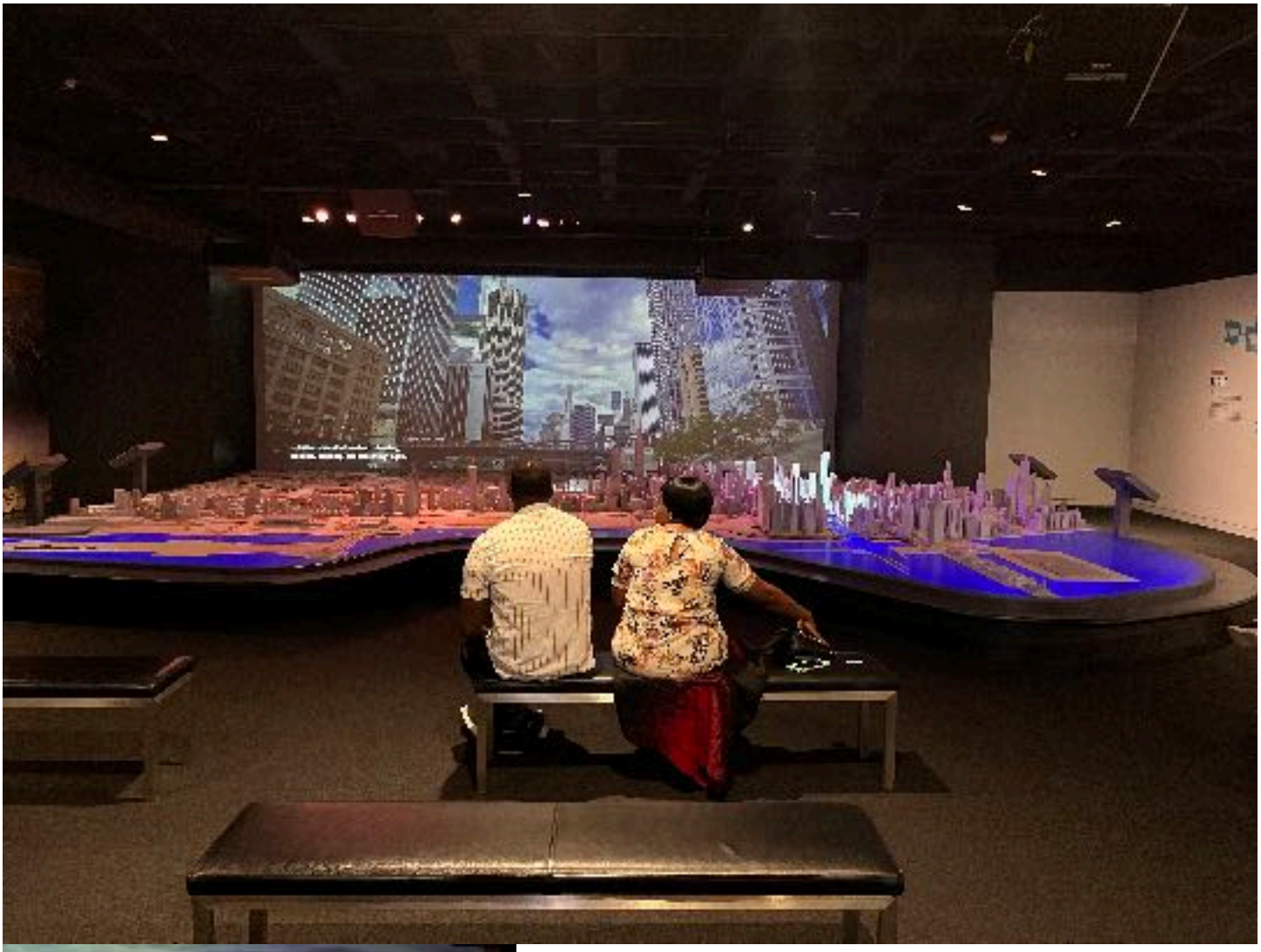
Fast-forward to 2022 and I was in Chicago for a little thing called WorldCon. Vanessa and I had a really good time, and she even made a little money! I went for a walk on afternoon and discovered a little museum not but a half-a-shirt-in-this-heat walk from the hotel. It was the Chicago Architecture Center, and it was a really good visit and one that shows how scale in Museums can be used to create a fascinating series of sensations.

In the first set of exhibits, there are various scale models of super-tall buildings. There was the Sears Tower (now called the Wilis Tower by those who accept change...) and the Petrona Towers. These were cool, I love architecture and you can really get an idea of what the design of these buildings mean, about how the elements like struts and curtain walls enable the buildings to withstand everything from wind to fire to the greatest enemy – gravity.

I loved these but this was not the SMOL thing that really hit me.

One of the premiere objects in the collection of the museum is a model of Chicago. It's big, room-sized, and when it was built in 2009, it was one of the best examples of a city model. In 2018, they added more building models, totaling more than 4000 at the end, and added a multi-media show that covered the history of the development of Chicago from the beginning through the Great Chicago Fire to the Depression to the Present. It's a


FIRST GENERATION TO FEEL THE
CHANGE. AND WE ARE THE LAST
THAT CAN DO SOMETHING ABOUT
SOLID ON
SOLAR POWER
THERMAL ENERGY DEMONSTRATION



stunning presentation, and it uses the model as a presentation piece, and it's great as it gives not only an easy and entertaining way to describe the history of the architecture and development of the city, but also is just super-cool! I spent a ton of time looking over the model, and while the buildings aren't particularly detailed, they give the idea of the elevations and some of the styles of the various neighborhoods. I was thrilled!

Yosemite has several models in their Visitor's Center. A series of them are recreations of an Ahwahneechee village. These are pretty cool, and you could push a button and hear the sounds of that activity, though I think half of them eventually just played some flute music.

That was not the cool one, though. That would be the scale models of Yosemite Valley.

One was of the entire Yosemite Park. It was huge, and since most folks only go to a few places – the Yosemite Valley, Tuolumne Meadows, Wawona – but this showed the sheer size of the entire park. It's really cool, especially for someone who has been to the park literally hundreds of times. The other model, just of Yosemite

Valley, has been there for decades, and it is so incredible because when you leave the Visitor's Center, you have an idea of what it means, exactly how small you are when you stand at the base of Half Dome, or look up Yosemite Falls. It's all sort laid out there for you, in much the same way that the models in Chicago opened my eyes to where I was.

There were also these glacier models that explained how Half Dome became Half Dome, but they weren't as cool.

My love of the SMOL comes from those models, and I'm always on the hunt for more!

~little vampires~
~by rebecca hicks~

"It looks like they're being nibbled by little vampires."

My husband James manages his diabetes by frequently testing his blood sugar levels. The price he pays for this diligent disease management is fingertips covered in tiny needle marks.

We handle all things that make life difficult for us with humor, which is why I playfully said "Ewwwww, gross" when he once menacingly waggled his fingers in front of my face.

"I know! It looks like they're being nibbled by little vampires."

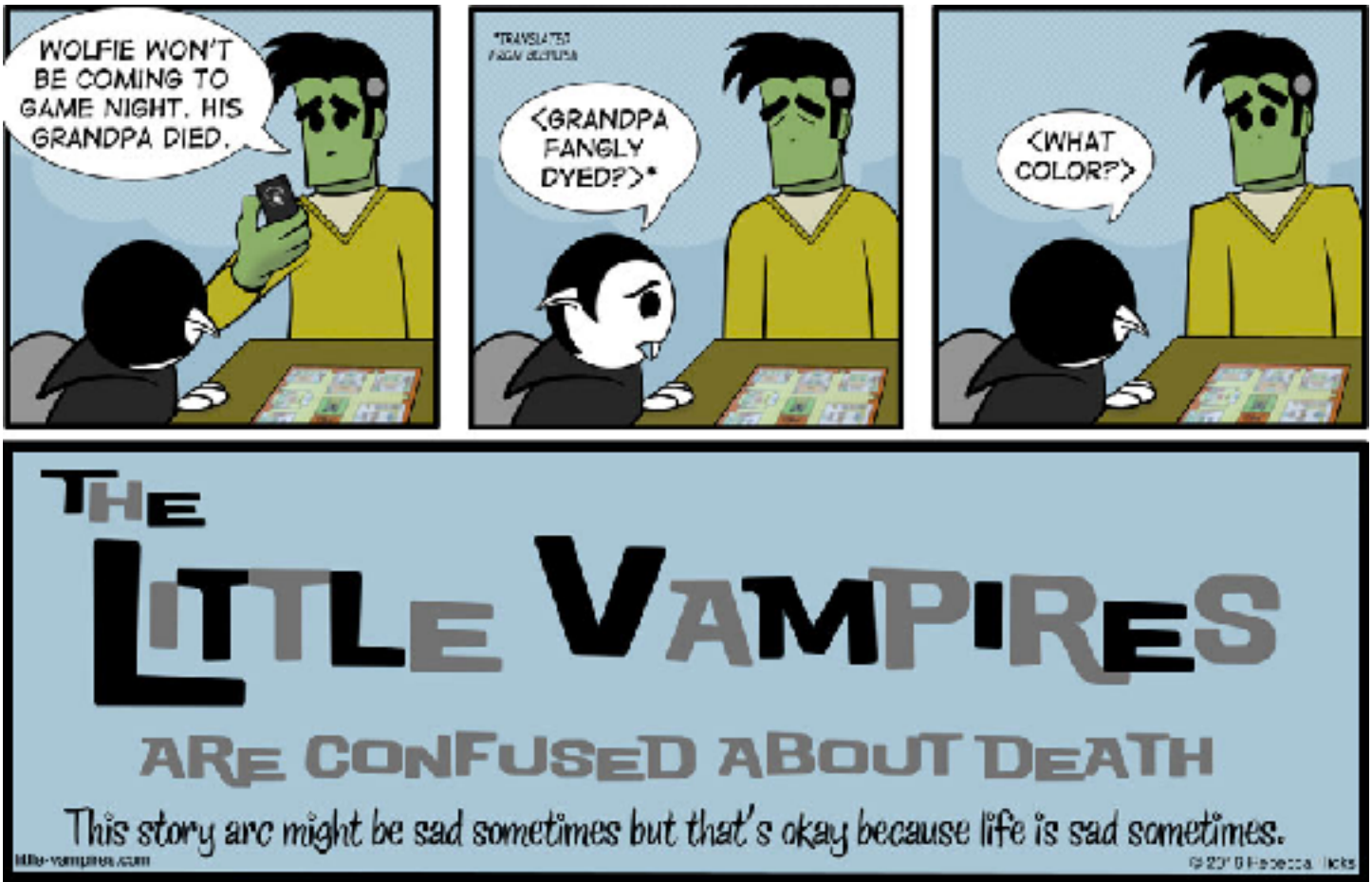
An image of a tiny bat-winged vampire joyfully nomming on my husband's fingertips popped into my mind and decided to take up residence there. I started sketching it on whatever surface I could find. Then I started wondering if there were others, and what their lives would be like.

From these sketches and ponderings came *Little Vampires*, which I wrote, illustrated, and published in the summer of 2007. That tiny book launched my career as an independent writer and illustrator, but it did so much more than that. The characters I created helped us cope with the difficulties of living with James's chronic illness. A big problem became small, bitey, and something we could laugh at.

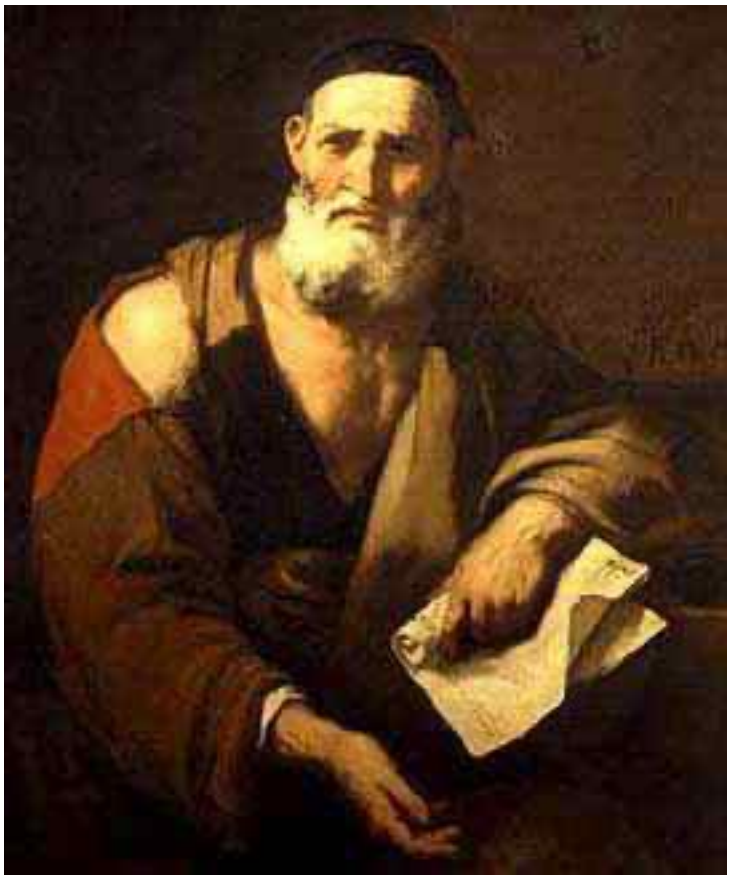
When I began the *Little Vampires* webcomic in 2009, I kept things as lighthearted as something about creatures of the night could be. But when my father died in 2015, I remembered why I created these characters to begin with. I wrote and illustrated a story arc about how the immortal Little Vampires were confused about death and loss. Creating it resulted in a catharsis I didn't even realize I needed.

http://little-vampires.com/comic/the-death-01/

The Little Vampires helped me face two of the biggest problems plaguing all of us foolish mortals; disease and death. They made the big feelings that come with coping with the inventible a bit smaller and more manageable. Like tiny needle marks on fingertips, the smallest things can have the biggest impact.



~atoms: the once and not smallest things~
~by bob hole~



Leucippus of Miletus (5th century BCE) is thought to have originated the atomic philosophy. His disciple, Democritus of Abdera, named the building blocks of matter atomos, meaning literally "indivisible," about 430 BCE. Until modern times, they were thought to be the smallest thing that existed, and they made up everything.

They are still considered to be the basic units of matter, and the smallest particles that any substance can be broken down to while retaining some qualities of that substance.

Atoms are composed of a nucleus (in which there are protons and neutrons), orbited by a cloud of electrons.

Protons are positively charged particles located in the nucleus, the center of the atom. The number of protons in an atom is called its atomic number.

Neutrons are neutral particles also found in the nucleus. There are usually, though not always, the same number of neutrons and protons in a nucleus. They help in some way to space the protons apart. Otherwise the proton's charges would push them apart.

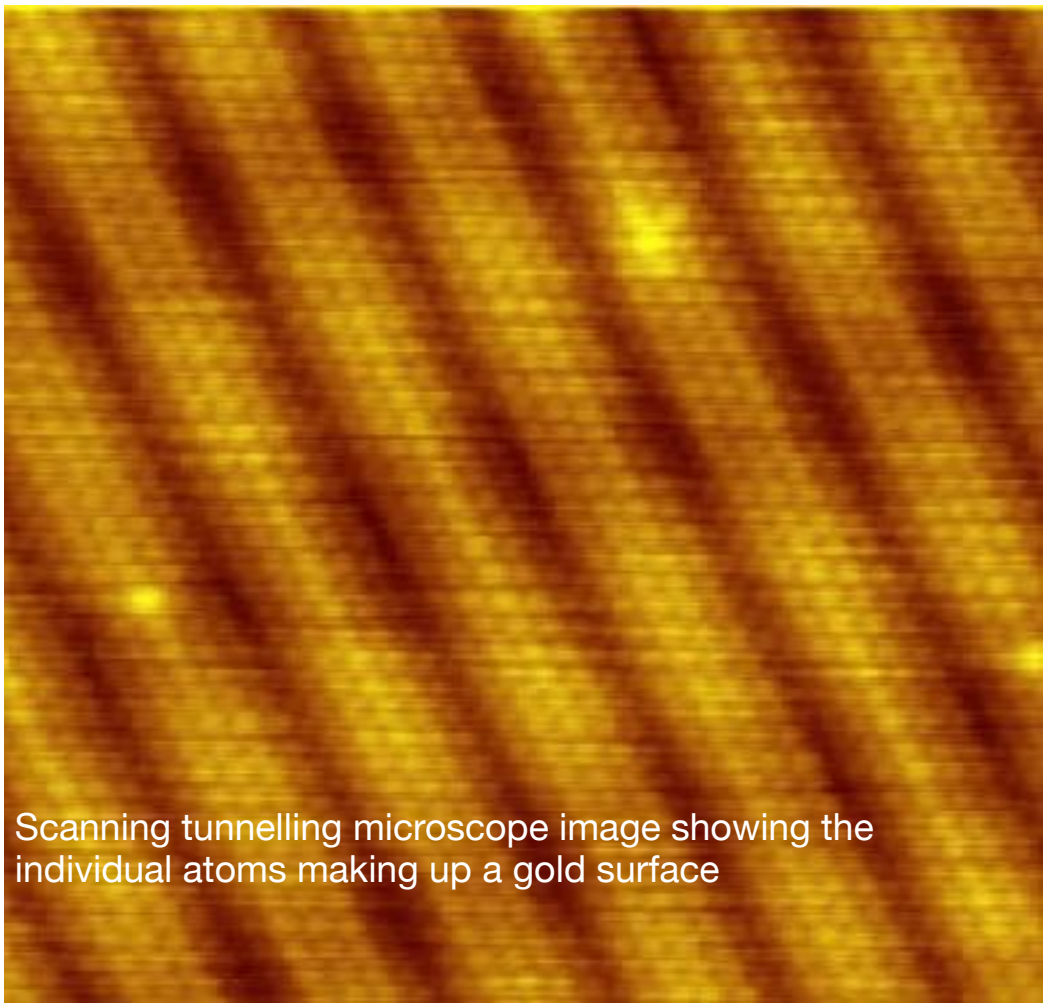
Atoms can have from one proton in the nucleus (Hydrogen, symbol H) to a theoretical limit of between 130 and 140 protons. The highest number yet seen is 118, in the synthetic element Oganesson (symbol Og).

92, however, is apparently the naturally occurring limit under Earth conditions to the number of protons in a nucleus, being the number in a Uranium (U) atom. Any larger number of protons and their charges are too strong for the nucleus to remain together for more than a very short amount of time. Oganesson, for example, has a half-life of 0.89 milliseconds. This is the amount of time before one half of a quantity of the element exists. No sample of Oganession can exist more than 1000 seconds, but it could, again theoretically, be formed inside a neutron star.

Electrons are negatively charged particles that orbit the nucleus in a cloud. They orbit in "electron shells," also referred to as energy levels. They normally stay in one or another of these shells, but when energy is added to or removed from the atomic system (when a photon is absorbed or emitted), the electrons may change their orbit, either moving farther away from the nucleus or closer to it.

As a negatively charged particle, electrons are attracted by the positive charges of the protons in a atomic nucleus. However, free electrons that are not orbiting a nucleus are what makes electricity flow.

Quarks are the smaller particles that combine to form protons and neutrons. Quarks are fundamental particles, which means they are not composed of anything smaller. Quarks come in six distinct "flavors" that have nothing to do with taste. The flavors are up, down, charm, strange, top, and bottom. Each flavor has a different mass



Scanning tunnelling microscope image showing the individual atoms making up a gold surface

and charge. Quarks also have a property called "color charge," which is unrelated to the colors we see. Instead, it's a term describes their strong nuclear force interactions. Quarks can have one of three color charges: red, green, or blue. Quarks always combine in such a way that the resulting particle is "color-neutral." Electrons are also considered fundamental particles, which means they are not made up of any smaller particles as far as we can tell so far.

Of course all these things may not exist. Strings (String Theory) are hypothetical entities that could be the building blocks of all matter. Strings are one-dimensional (sort of) entities, like tiny loops that have only length, not width, height, or depth. The strings can vibrate at different frequencies. These vibrations give rise to the various particles and their properties, such as mass and charge. The different vibrational modes of strings correspond to different particle types.

String theory requires extra dimensions beyond the three dimensions of space and one dimension of time that we experience. These extra dimensions are thought to be compactified and hidden at scales much smaller than we can currently observe. So strings aren't really one-dimensional, they're just one-dimensional in our potential observation.

Photons that I mentioned above, are quantum fundamental particles of light and electromagnetic radiation. They are unique among particles in that they have both wave-like and particle-like properties, and they play a crucial role in the transmission of electromagnetic energy. Photons can be absorbed by matter, causing electrons to transition to higher energy states (higher orbital levels in an atom). When an electrons move to lower energy states, they emit photons, resulting in phenomena like fluorescence and luminescence.

So after 2500 years of atoms being the smallest of things, they aren't really, and may not really exist after all.

~forensics, in a nutshell~
~by chris garcia~

Frances Glessner Lee has be considered one of the absolute pillars on which modern forensics is held up. Her endowment of the Harvard Department of Legal Medicine in 1931 established the first true school for forensic pathology and the relationship to crime. Partly inspired by Sherlock Holmes stories, she worked at establishing professorships, a legal medicine library, and a series of seminars in homicide investigation that were among the first of their kind.

She also created one of the most fascinating and small training tools in the history of forensics - The Nutshell Studies of Unexplained Death.

Glessner Lee was an avid model maker. After inheriting a strong fortune in the early 20th century, she set about making miniatures, typically at 1/2 scale. Her first large-scale miniature was of the Chicago Symphony Orchestra building. This she made as a gift for her mother, and it was incredibly detailed. The players on stage wore clothes, played tiny, but actually playable, instruments, and the music stands had scores on them, a single hair used to write the notation on them. Every detail of the hall orchestra was recreated, including pieces that the audience would not normally see.

Now, as she had been working on endowing and teaching skills in homicide investigation and forensics, she made an incredible contribution to the world of detective and police training. These were 20 models, technically dioramas, crimes captured in amber for all time. These were twenty deaths, built on compiled and composited cases of homicide. These models, done one inch to a foot, recreated the site of theoretical deaths. The twenty represented several different situations - three room dwelling, log cabin, blue bedroom, dark bathroom, burned cabin, unpapered bedroom, pink bathroom, attic, woodsman's shack, barn, saloon and jail, striped bedroom, living room, two story porch, kitchen, garage, parsonage parlor, and bedroom. These seem to be pretty normal, mostly representing the kind of dwellings that would be found among the lower and middle classes at the time. Glessner Lee was an heiress and would never have lived in these kinds of dwellings. They were small, cramped, full of detritus, clutter.

And in each was at least one victim.

The detail of these dioramas is incredible. There are working mousetraps in a couple. The calendars have pages for the months that have yet to come behind the month the crime happened in. The tiny bullet holes, some less than 1/24th of an inch, were placed in exact lines of supposed fire. The cloth used to make the clothes were worn by Frances to give them authentic wear.

And she recreated accurate corpses.

Each diorama had at least one victim represented, and these were recreated with as much attention to detail as the household items. She attended post-mortums and poured through crime scene photos to get accurate discoloration and properly detailed effects of various stages of decomposition.

Oddly, each of these dioramas would cost between three and five thousand dollars, more than some of the locations she was recreating would have cost to purchase wholesale!

The works passed from Harvard (the Stanford of the East) to the Maryland Office of the Chief Medical Examiner, though they have allowed them to be displayed at other sites, including at the Renwick Gallery of the Smithsonian. There, they were approached as works of art.

Though, to this day, they are still used as training tolls.

They are not cases to solve, though there are written solutions, that's not actually the point. Glessner Lee meant that they were to be used as eye-trainers, things to encourage detectives to know what things are meaningful in a crime scene, and what to note to ask for more details from a medical examiner. Her original idea was that someone would get 90 minutes, a flashlight, magnifying glass, a set of witness statements, and a small notebook. The viewer would write notes, make observations, and write down things. At the end, you'd compile your thoughts and likely then you would be given the exact nature of the crime depicted. Since these are kept under lock and key, save for those who do the actual trainings, no one is quite sure, though Eric Bush has put together an amazing page with four of the crime scenes (Dark Bathroom, Kitchen, Red Bedroom, and Parsonage) with call outs, though not official, simply her creation of things on the crime scenes. These are fantastic, and show many of the important elements of the dioramas and their clear usefulness in training. One, kitchen, clearly seems to be a faked suicide, and there's some really interesting details whether you're an investigator or a model fan. It's an incredible piece of work, and the thought experiment is even more fascinating.

As a woman in a field that was, and typically still is, male-dominated, it's not a surprise that she used women as the victim in most of the dioramas. She presented women whose deaths have often been ignored, the 'less dead' as they are known today, and these dioramas are given the same level of detail as those of crimes that would made headlines and get massive police attention. She likely understood what a detective would be seeing in the field, and presented that.

I love the idea of models teaching, something that I clearly love about museums that use models. These may be the most important training tools of the first half of the 20th century, and Frances Glessner Lee one of the real visionaries, one who understood that size is less important than detail, and she provided an incredible level of detail for the trainees.

~the miniatures of the blackhawk museum~
~by chris garcia~

Blackhawk, a small, and exceptionally affluent, part of the East Bay Area of Northern California is home to a museum. That's not a shock, is it? Rich folk wanna show off the level of their richness, and museums are a really good way to do just that. The Blackhawk Museum started off as a way to show off an incredible collection of automobiles. They're gorgeous, yes, but they're not SMOL! In no way are they...save for a few models in cases that were mostly hidden behind incredibly expensive and thoroughly beautified cars.

No, the models were in two other galleries – *Into Chin*a and *Spirit of the Old West*.

The *Into China* gallery features a number of pieces of China arts and craftsmanship, but it's dominated by two models, one of the Forbidden City in Beijing, incredibly re-created to exacting scale, and a more fantastical large-scale model that runs 80 feet along the back wall called Dreamland. These two are magnificent, and literally

less than five feet away from one another.

Dreamland is carved from Tuchen wood, an incredibly expensive and hard-to-source wood. The entire piece took seven years to carve, and it shows a peaceful village built into the mountains, running alongside the water. It's incredibly beautiful, and clearly not supposed to be a true representation of any actual place.

The Forbidden City, on the other hand, is as close as you can get to feeling like Godzilla if he ever crossed the Sea of Japan and headed onto the Chinese mainland.

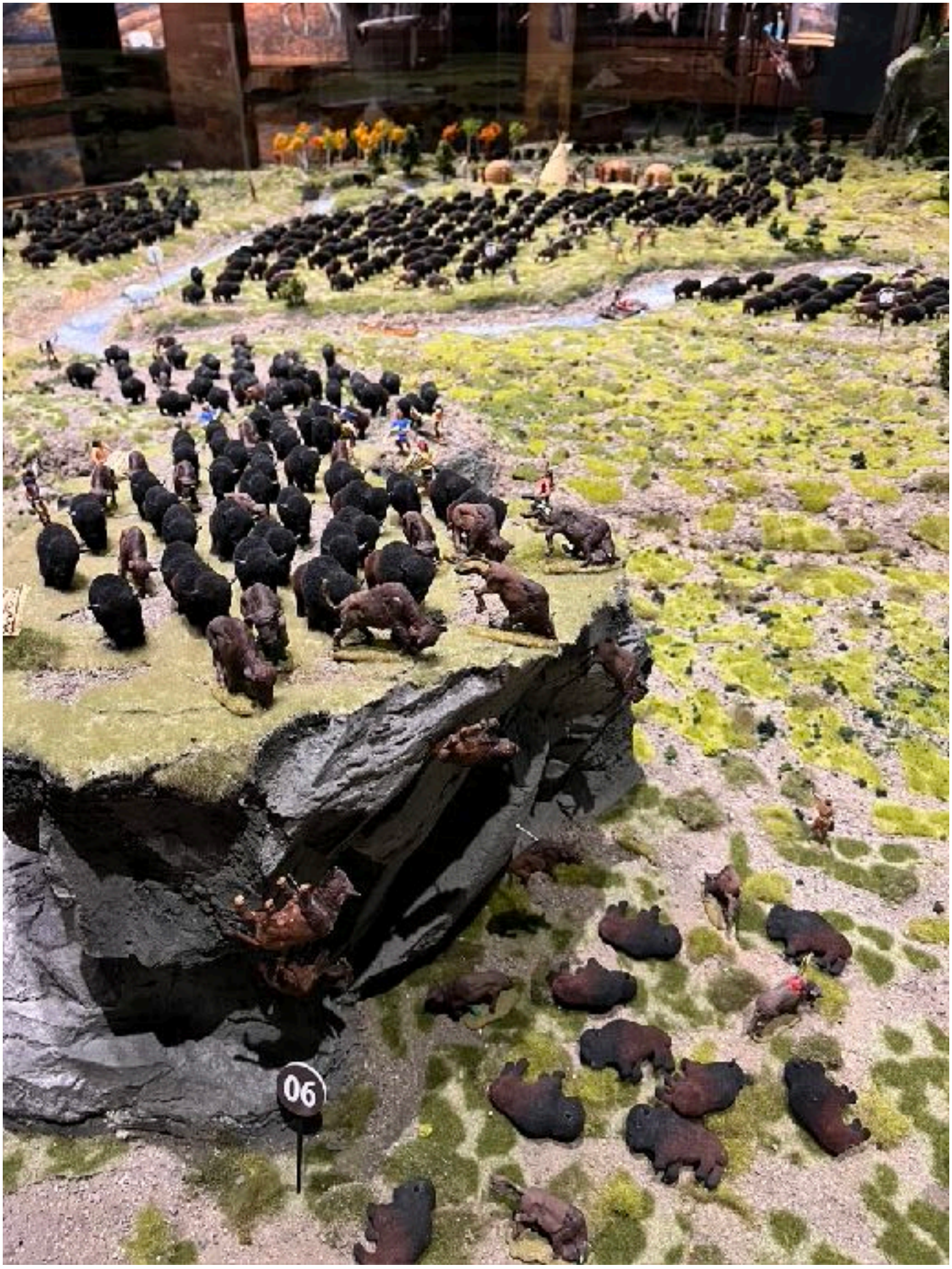
It's an exacting replica, one of the largest every made of the Forbidden City, home of Emperors for centuries. Mapping of the Forbidden City done in the 1970s and 80s, and source photos taken in the 1930s through early 50s, allow this to be an incredibly exact replica. Even as some of the buildings have become damaged over the last few decades, the model shows them as they would have looked at their best, which was likely when the Emperors were still the bosses.

The other gallery, The Spirit of the Old West, is more thorough, with everything from classic guns, to covered wagons, to taxidermied animals (including an incredible Buffalo) on one side, and Native American artifacts on the other. It's almost entirely about the plains tribes, I didn't see anything about my tribe, the Ohlone, who were resident in the area, but what are you gonna do? The Plains Nations were far better artifactually than us Coastanoans.

But it's not the objects that make this exhibit, but the huge model that runs more than 100 feet!

They made an interesting choice – portray significant moments in both the settler and native experiences, both positive and negative. So, one section showing a massacre of the Sioux might be butting up against Custer's Last Stand. While this may make it seem like there were far more native victories than settler and Army wins, it is nice to see any recognition that there was not merely conflict, but straight up massacres of native peoples.

I will admit, the parts of the sprawling diorama that I loved the best were the recreation of a Buffalo leap, where native Americans would herd buffalo (OK, American Bison) up rock formations, forcing many of them over the edge and off the cliff. It's incredibly well done, and there's even a couple of buffalo in mid-fall depicted. The other one, on the complete other end, is of Buffalo Bill's Wild West Show. A legendary piece of Americana, it's why America went gaga for Westerns for the first 50 years of film, and why we have some of the stereotypes of Native Americans and Cowboys. It was romanticized, but it was also one of the few ways for Native Americans to make a living and get to share some of their culture through the performances and the fact that they brought famed figures in the Indian Wars like Sitting Bull and Chief Joseph.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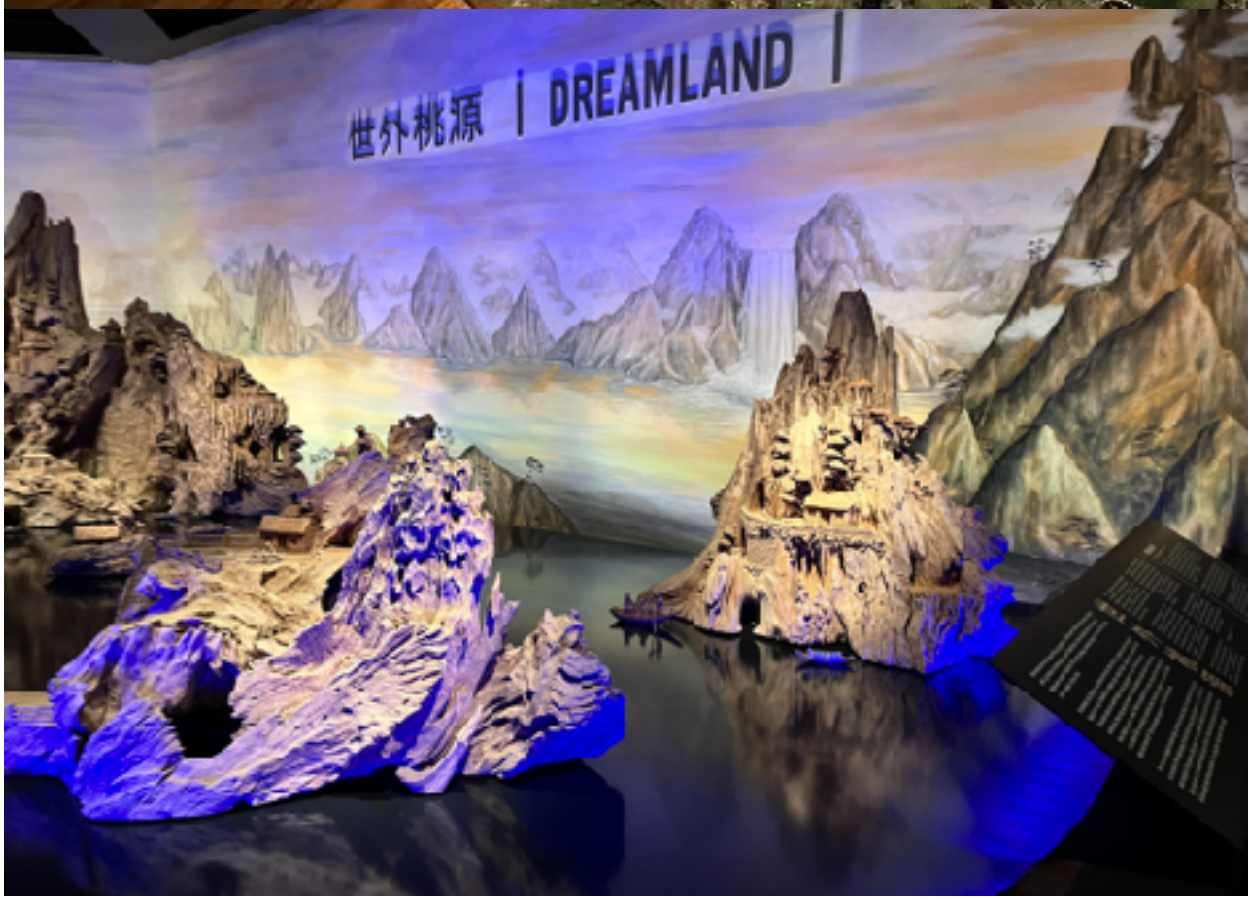
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~a not-so-little list of links about little things:~

~compiled by sarah gulde~

Miniature painting for beginners and how to get into the hobby:
https://ageofminiatures.com/miniature-painting-for-beginners/

Keeping insects:
https://www.keepinginsects.com/

How to build a dollhouse from scratch:
https://everythingverysmall.com/how-to-build-a-dollhouse-from-scratch-and-6-questions-answered/

Five micro ghost stories:
https://mastersreview.com/five-micro-ghost-stories/

50 little things that make life happy:
https://mashable.com/archive/50-little-things-that-make-life-happy

The shortest checkmate in chess:
https://www.chess.com/blog/ChessNetwork/the-shortest-checkmate-in-chess-the-fools-mate

Meguro Parasitological Museum:
https://www.tofugu.com/travel/parasite-museum-tokyo/

These 8 artists are making impossibly small work:
https://www.artsy.net/article/artsy-editorial-inside-mesmerizing-impossibly-tiny-art

The ten best science fiction & fantasy shorts on the web (by Journey Planet's Christopher J Garcia):
https://www.uncannymagazine.com/article/short-list-ten-best-science-fiction-fantasy-shorts-web/

Here are 24 of the greatest short poems ever written:
https://happymag.tv/best-short-poems-of-all-time/

20 things you didn't know about bacteria:
https://www.discovermagazine.com/health/20-things-you-didnt-know-about-bacteria

The shortest papers ever published:
https://paperpile.com/blog/shortest-papers/

The 100 smallest countries in the world:
https://www.titlemax.com/discovery-center/lifestyle/the-100-smallest-countries-in-the-world/

21 fascinating images of everyday objects under a microscope:
https://www.rd.com/list/images-of-everyday-objects-under-a-microscope/

Nanotechnology:
https://education.nationalgeographic.org/resource/nanotechnology/

Miniature horses vs ponies:
https://learninghorses.com/miniature-horses-ponies-difference/

85 "It's the little things" quotes to help you enjoy the small moments and things in life:
https://www.positivityblog.com/its-the-little-things-quotes/