Observations and theories

Uncovering the relationship of place
Having children reflect on their experiences allows for the generation of new ideas. Documentation (photos, drawings, recordings, video) taken during the experience provides the children with the tools of time and a mechanism for the deep reflection that supports learning.

Through reflection documentation scaffolds the children’s understanding of a space or place, which shifts the children from a casual relationship towards a deeper understanding. Last semester we observed the relationship to their natural world grow more complex with seeing the plants more as thriving systems rather than just objects. The children’s observations of the plants nurtured their relationship between the insects/bugs with the water, soil, air, roots and how these systems were connected.

I’d like to share the children’s documentation -- drawings and quotes from their reflections on Kaimana beach. The documentation allows us to see the many types of relationships forming through their connection-making at Kiamana beach. Notice how the children are noticing how one thing affects another, i.e. creatures(living things), water, wind, sun, light, elements like sand and coral rock and algae.

The children's observations parallels and connects to their previous work, even in this different environment and space. Although these are their beginning observations/and theories, we see that their early observations reveal much about their understandings and theories around this new space. In the studio, for example, many of the children were interested in drawing and reflecting on the pieces of trash they found, setting into motion stories of how the trash might have ended up on the beach. Yet we see other children have noticed the macro elements of the space, such as small of fragments of shells which ignited their wondering how or why the small fragments came to be. In the classroom the children reveal deep theories of interconnectedness and relationship between elements. Below are images, drawing and quotes from children that illustrate their reflections and theories about this new space.

(Drawing on first page N.K., second page E.E)
“When you touch it, it feels different from how it looks. When you touch it, it gives you a little hint to the way it feels. When you look close to it it looks kind of shiny. But when you look faraway from it it looks smooth, when you look closely, it looks bumpy and rough.” - K.N. (drawing at right)

“The sand feels soft because it has soft stuff. The tiny rocks feel soft. The water makes them soft… When you go in the pool it’s itchy, but I think the salt water is not itchy.” - A.D. (drawing at left)
"I think the lines are its bones."

K.O. and photo

“Little lines and white and black. The waves made it small. The shell hit the rocks. It’s special because it’s small.”-K.A.L.
“There was a rock that had tiny holes in it. Maybe there’s a little creature living in the little holes. Maybe a whole big family of creatures. I just found the rock like that. Maybe a tiny, tiny crab was living in there before, then he moved into another rock. The crab makes the holes. The holes were kind of bumpy.”-S.M.
“The sun has superpowers and turned the coral white. Heavy waves break off the coral. Shells have animals in there. Shells protect the animals and the heavy duty waves.” - R.C.
“The water never runs out when it hits the sand. The wind makes the wave hit the sand, then the water grabs the sand, brings back a little water. The rest of the water gets dried up in the sand.” - D.Y.

“Water is under the water. The wind under the water makes the waves bigger. The outside wind goes into the water, blows [water] slide up. The wind goes down deep in the water and back up again. The wind goes down → waves get smaller and smaller.” - E.E

“The big wave is made by a big wind current. What about the little waves? Small wind current. The sun makes the waves go to the shore. If there’s no sun, the waves do not come to the shore? No, the ocean is just flat”. - J.B.
“I saw the sand change colors, I saw blue, green, all the colors. I think the sand changes colors by itself.”
-T.K.

“Sand is so little it can come out easier, even if your hand is open or closed. Sand goes in your shoes when you walk on it because sand is so tiny, and you step on it hard. Sand is so small and so light. If you step light, it doesn’t get in your shoe.”
-K.T.

Drawing T.K and M.C.
“There’s a little bit holes in the trees, and the wind goes through the trees. That’s what makes the waves move. The wind ruffles the water [it makes the noise].” P.M.
“Tiny shells crushed from the water a long time ago by big waves. The shells are on the bottom and the water goes under the shells and breaks them up.” - R.C.

The shell: there are lots of lines and animal was living in there because I saw a hole in it. The lines mean that there is an animal living in it, and if no lines, an animal is not in it. - M.S.
“When the deep water touches the shallower water, waves are made. When waves hit other water, that’s when it crashes. Bubbles are little bitty things that hold air; they float. Waves go under the water after they crash. They still go up and down under the water. The more they do it, they go faster and faster. That’s how currents are made.” - N.K.

“I see pipes when I walked with my parents. Close to us. The rain goes into the ocean. The pipe brings the rain that drops to the pole then it goes to the pipe and then to the ocean. This is how the ocean gets water.” - B.H.

“Why are there still waves when there is no wind?” - M.C.
One of the children found a quarter on the beach along with other rubbish...

“Someone dropped it accidently. It got lost on the sand. When the waves hit it, it will go into the ocean into a treasure, or into a fish.” - E.E.

“The quarter could make the sea creatures and animals choke and die!” - L.F.

“Someone lost it. Their money pack was open and the back pack was open too and it dropped. The person that lost the money might not be rich. they might be sad.” - M.S.

“Somebody lost the quarter then somebody picked it up, then they lost it, Then someone else picked it up and then they lost it, and it kept going until a Kinder found it and now it’s here.” - E.E
“Maybe someone was littering. Maybe they didn’t know where the trash can was. It’s an old piece of plastic because people have stepped on it for a while. A bird could eat it and die.” - B.Y.

“I think someone polished the little rocks, then put it in their pocket went to the beach and it fell out. They went home leaving it on the sand, then we found it and took it.” - T.T.

“Maybe the turtle got it. He found the crystal. In the water he looked close enough to see it, and it was a crystal! Then he put it in the ocean.” - E.K.

“Maybe someone was wearing crocs and then it fell off. Maybe it just stays on the waves, and the waves wash it away. It’s a bad thing. I wonder if the people miss it.” - T.L.

M.H. drawing and theory
"The water is waving then and they put holes. Maybe the waves are so tough they can almost crack. Maybe how heavy the shell is. If it's a little shell, it will be careful because they are baby shells. Bigger ones they're the grown ups. They can go rough so it makes holes. Bigger makes lines and holes smaller less holes.”-M.T.

"The ocean turns white, and the sun and the clouds make the ocean turn white. The sun is orange, and the clouds are white; the ocean turns white and orange.”-X.G.
“Over time the shells the water softens them. After it makes it shinnier, it accidentally shrinks them…it’s trying to shine them and not shrink them, but it does shrink them. Because the water peels the old stuff. If all the rocks and shells were too big, we wouldn’t have a place to swim.”-L.K. (Drawing above)

“I drew a broken shell. The humans must of stepped on it on accident and it shattered. Pieces of it went in the water and then to the left and the right and the sand all over.”-E.C. (Drawing below)
“The glass has sand in it. Their must be a small hole that the sand can go inside of. It sparkles in the light.” - J.O.

“There is a big bump for the opih to hide even deeper. They don’t want anyone to kill him.” - D.M.
Corals are under water in the ocean. Waves are white, and when they crash, there’s bubbles. We have to save it because there’s only a little bit in the ocean because some animals, like parrotfish, eat it. Coral is actually creatures that live, polyps live on the coral, and they just stack. They build the coral. They don’t eat the coral because that’s actually the skeleton. Parrotfish scrape off the algae, some polyps. Coral is hard for them to eat.–L.D

“Refering to a shell:”You know I thought it just had one color, but it doesn’t it has many colors.”–J.F.

“It feels lucky because I have never seen this before at the beach.”–T.M.

Someone puts a seed inside the rocks and a seed grows. The coral is in the water, and water swooshes it inside the rock. Coral goes in, and some of it peeks out. Coral is on the sand. When water goes on the sand, it grabs it.”–D.K.

Drawing at left K.T, and N.K.
“The wind makes the waves because sometimes the wind is strong, and it can make currents. Current = how the water moves. Wind goes inside the water so it can move the deep part of the ocean.”-E.M.

“There are different layers of colors because the sun reflects on the ocean and makes rainbow colors. The rainbow colors are on the ocean. Blue, red, green, yellow, and orange. At night, the ocean is black.”-C.C.

“Some sand is colder than other sand because the sunshine doesn’t shine through the warm sand.”-R.J.
Drawing left L.D and M.C.