

<SSH米国海外研修>報告 2学年参加者

12月11日(日)~12月16日(金)(4泊6日)の日程で米国カリフォルニア州サンフランシスコ市・シリコンバレー、及びヨセミテ国立公園での研修を、生徒11名、教員2名が参加しました。その研修の様子を英語で報告をします。

参加者 普通科：堀内拓朗 山岸達希 大森愛希子 常盤二千華 柳沢周 神田昀志
理数科：井原歩 大峽聡一郎 小山晟矢 竹内詠菜 田島ひかる
引率職員：手塚理実 長山耕己

<On the first day>

We went to Yosemite National Park and did fieldwork. The park is located in west of California, Sierra Nevada Mountains.



Yosemite Valley is U-shaped valley moved of glaciers. There are rocks called Half Dome and El Capitan, and waterfalls called Bridal Fall. John Muir took a chance to protect Yosemite. And he is the most famous historical person in California.

<On the second day>

Mr. Pete, a guide in Yosemite, led us around the park. He told us a lot of interesting stories about Yosemite.

One is about mysterious bubbles. Some creeks ran through the park and cakes of tiny white bubbles like detergent were floating on the creek. According to Mr. Pete, surprisingly, these bubbles were created by nature!

When a storm comes, a flood is caused and it mixes dead leaves on the ground. The skins of the leaves are shaved by water and it becomes strange white bubbles. So these organic bubbles are clean and not sticky. Mr. Pete applied the bubbles to his beard like shaving cream to make us laugh.



Another story he told was about forest fires.

In Yosemite, just like other places, forest fires are extinguished by firefighters as soon as it occurs. But this might not be only good for the forest, he said.



When a forest fire occurs and the trees are burned, they stop making sap which preventing insects. So then insects come to bite the trunks of the trees, and then woodpeckers come to eat the insects. Thus, after a forest fire, the burned trees become a woodpeckers' cafeteria. Forest fires are necessary for the animals living in the forest.

In the afternoon, we said "good bye" to Mr. Pete and went to a museum in the park. We learned about animals in Yosemite, John Muir, lifestyles of the Native American, and other interesting things.

<On the third day>

At first, We arrived at the NASA Ames Research Center before knows it. The building was small because the role of NASA has been decreasing today. In the building, there was a big model of the Space Shuttle. It was just like the real thing. These days, space food has been developing. For example, Japanese cakes or ramen. Besides, there were rock from the moon and several kinds of space suits. Although the visit was very short, we felt the awesomeness of the technology.

The next was Intel. It was established in 1968 by Robert Noyce. Robert Noyce is one of Intel's founding partners. He invented the integrated circuit and had a big influence on the computer industry. Since 1968, it has been following the frontiers of computers. The building was refined and modern. Year by year, quite big computer had become smaller and smaller. It showed the power of Intel. If it were not for this company, what would it be in the future?



After lunch, we visited California Academy of Sciences. It was renovated in 2008. Inside the big rounded dome, there were many kinds of tropical creatures. A vividness frog, no colored crocodile and others. There were many rare displays that we had never seen in Japan. Multi-colored butterflies and birds were flying freely. We appreciated the world view as if we were in a tropical zone. As well, we could see a planetarium and an aquarium. Both of them were

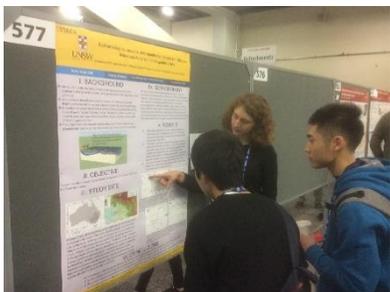
clear and charmed us. By the way, we noticed one thing, In America, the museums provide us the chance to feel displays by all our five senses. For example, there were exhibitions where we experienced an earthquake's shock and electric eel. They gave us a different kind of interests rather than just looking.



<On the fourth day>

This day had a lot of highlights. First, we visited the American Geophysical Union (AGU). It is one of the biggest conferences in the field of geophysics all over the world. Many scientists and students gather to share and learn. We mainly looked at the poster presentations and asked about the research.

There were many foreign residents as far as the eye could see (In the USA, we were foreign residents.). We had to speak and listen English. Although some of the research was too difficult for us to understand, we asked some easy questions. Some Japanese Universities showed their research, too. We could ask in Japanese and of course we have understood perfectly. We found that we should brush up our English as soon as possible. We want to announce our research someday at the AGU.



Next was our exchange visit to De Anza High School. The Shimada club (Japanese culture researching club) students led us all around the school. It was amazing because there were 15 basketball courts, 2 ballparks, 2 soccer courts, and a training gym and so on. This school was rich in facility.

After that, we observed a chemistry class. We found some different things. First, every teacher has their own class. Students must go to take the class. Second, they do not the same contents. In the USA, many schools have a grade skipping system. Each person can learn their own pace. But this style may cause a huge gap. Third, some students go to school by their own cars. More than 16-year-old students can get car license. After school, some students stayed to interact with us.



We announced some presentations. Probably they understood what we said. We communicated with them. They showed us the tennis ball collecting machine. They wanted to improve it. They also interested in Japanese anime, so we were getting along very well. During that time, we could feel the typical American atmosphere.

Lastly, we visited the University of California, Berkeley. We visited Prof. Kondolf's laboratory. They are trying to build eco-friendly cities. Mr. Ari Frink, involved in master's program, explained to us about their research. They used a computer simulation to predict the damage from possible disaster. That is how they examine how and where to construct building. There was also some experimental device outside on campus. When a flood happens, the bypass near the river will set water free from stream. This idea is very clever. The university is indeed a prestigious school.



<生徒感想>

- 海外における高校や大学との交流が刺激的で良かった。AGUでは英語でのプレゼンを聞き、英語でのコミュニケーションの重要性を感じた。
- 日本で見られるものとはスケールが違い、生物分野や地球科学分野で多くの知識を得られたので、貴重な経験になった。
- AGUで世界各国から集まった研究者たちの雰囲気、かっこよくてとても憧れた。
- 初めて海外に行き疲れたが、良い経験になった。
- 日本では見られない大自然を学ぶことができ、とても充実した研修になった。
- 科学の用語など難しいことは分からなかったが、AGUや現地の高校生との英語での会話に積極的にチャレンジできるよい機会となった。
- 自分で米国の空気を感じることで、より科学の興味・関心が増えた。自分から積極的に英語で質問をしてコミュニケーションをとることができた。
- 科学を通じて高校生や研究者と交流できた。アメリカ独特の雰囲気や文化を肌で感じる事ができ、英語の大切さを改めて感じた。
- 日本を客観的に見る事ができ、自分の生まれた国の文化がより好きになった。
- 英語がコミュニケーションツールであるという一面を改めて実感できた。伝える意志、聞く意志があれば、言語が完璧でなくても意思の疎通ができることを実感した。