

PROBUS Club of Central Edmonton Newsletter

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Editor: Ken Hoffman

Website: <u>www.probus-central-edmonton.com</u>

Email: <u>probus.cent.ed@gmail.com</u>

PROBUS Events:

November 16 – Dr. Chis Herd

Dr. Chis Herd spoke to us about the Mars Rover project. He is from the U. of A. Dept of Earth, and Atmosphere Sciences. He is a member of the NASA team running the Mar Rover. Before I try to summarize the presentation, I wish to note that sometimes we are privileged to have presentation that is amazing, this is one of those times. As a listened I was struck by sheer complexity of the Perseverance Rover, the mission, and the brilliant minds behind it. He started by contrasting Mars today versus the of Mars as it might have been 3.6 billion years ago. So why the change? If there was water on Mars, then was there life? How do we find out if there was life? They need to look for microbial fossils or evidence of photosynthesis. To do this they need to bring the Mar's soil and rocks to earth, thus this mission.

The Rover is designed to collect and cache samples. The Rover is truly a high-tech marvel with cameras, lasers, spectrometers, weather stations amongst many other technologies. In addition:

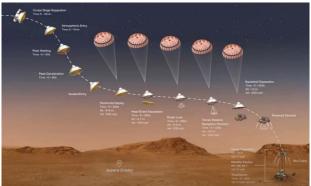
- The Rover can produce oxygen from the atmosphere.
- It has a helicopter
- A nuclear power generator
- Storage for samples and tools to secure the samples



The project timeline covered the period from 2018, with selection of site, to 2021 and beyond. This includes land on Mars to pick up samples and bring them to earth perhaps by 2028.

It left earth July 2020 landing in February 2021. The trip covered 471 million kilometers. Having caught up with Mars it had to enter the atmosphere, descend and land – 7 minutes of terror! All they could do on Earth was to wait for 11 minutes after the landing to see what happened.

Landing was one of the first demonstration of the sheer complexity of the mission and the amazing technology involved. The lander itself had to be able select the landing site and place the Rover on it. The Rover was placed in a safe spot which was only a couple of hundred meters wide.



It landed in the Jezero crater which had evidence of water filling it. After landing the Rover embarked on a crater floor campaign. One of the early experiments was testing the helicopter. Initially planned to be a technology demonstration its success led the to using it for reconnaissance flights...moving from the original planned 6 flight to over 15. We then heard about the key reason for the mission; that is collecting samples and caching them. To do this the Rover had drilling, collecting, testing and storing tools. The first sample was from such a porous rock it could not be collected. The next was successful. Images in the presentation were as current as the day before the presentation, it was in effect real time. They now have three rock samples.

Chris was selected as a return sample scientist. So now he will wait for the samples to come back to earth. He is also of the project science group for the whole mission. As an interesting aside, he told us that this was a life dream of his since he was 13 years of age. Next, we went through the plan to collect samples, store and then cache some so that they can be picked up in 2028 and brought back to earth for testing. As noted, Chis is waiting. This summary is a brief version of what we heard. His comfortable and casual demeaner belied the truly amazing nature of his talks. As noted, at the beginning we were privileged to see it.

November 23 - Thomas Long

Thomas Long of NorthWind Heritage Consulting provided a Zoom presentation about Edmonton and the "No-Good, Horrible, Very Bad Decade: The 1910s and Our Sense of Place." The presentation spoke to the many difficulties that arose in the 1910's and the related changes in streetscape. During the presentation he shared anecdotes from the time. Tom started by setting the stage by reviewing the build up to the decade. First the railroad arrived and a remarkable population boom, reaching 72,000. As a result, there were new roads, streetcars, buildings, and telegraph. Edmonton had an unbridled sense of optimism. The boom was so busy that people had to live in tents, these people were from all walks of

life. The legacy of these times can be seen in Glenora, Old Strathcona, Highlands and Westmount.

The boom busted in early 1910's with a dropped in population of about 20,000. The city itself became a patchwork. Two legacies of the bust were the High Level bridge and legislature building. These were started before 1910 but finished in the period. Next was the declaration of war in 1914. Many Canadians signed up to fight, including Edmontonians. There were great celebrations at the time the troops left. The Armories were one of the legacies of this time. We then experienced a flood which wiped out all the industry and some neighborhoods in the river valley. Due in part to the economic bust, the city was able acquire much of the river valley and turn it into parkland.

In 1916 the prohibition came into effect. It was driven by the temperance movement. Oddly enough the legacy of this period were breweries. Next was the war and many of the tragedies that arose from it with more than 24,000 Canadians dead. Cenotaphs and cemeteries were some of the legacies which arose from this time.

The World experienced the influenza epidemic, common called the Spanish flue. Buildings during these times like the Pembina Hall were pushed into use as a health facility. Finally, the war ended, and participants returned...some 5 months after the end some 30,000 Edmontonians returned. These soldiers saw many of the building built in the decade as they paraded down Jasper. Next was the general strike which took place throughout Canada. For a time, the city was run by the strike committee. While it is stretch to find a streetscape legacy, he did note the Edmonton Railroad which was operated by the strike committee for a time. Finally, Edmonton was out of the decade. He reviewed that period in 1920 to start of WWII. He wrapped up by setting out the importance of the heritage infrastructure. We appreciated the review of the period it was quite a time where one likely survived rather than lived.

Stay Health and Enjoy the Holiday Season