SSSA member David C. Weindorf (Texas Tech University) and film director Paul Allen Hunton (KTTZ-TV) tackled the difficult subject of climate change in their documentary, *Between Earth and Sky: Climate Change on the Last Frontier*. The film is already garnering critical praise and will be shown as an “Official Selection” for the Environmental Film Festival in Washington, DC on 15 Mar. 2017. It is also an Official Selection for the Colorado Environmental Film Festival 2017, and Weindorf, who served as the movie’s producer, showed clips of the film as an invited speaker to Conference of the Parties 22 (COP 22), the United Nation’s global climate conference in Morocco, last November.

The idea for the film came from Weindorf’s desire to capture the knowledge of Chien-Lu Ping for future students and the public. Ping, who retired from his work in Alaska in 2016, is a SSSA Fellow and Emeritus member. For several years, Weindorf and Ping led an “Alaska Soils Tour” for students each summer.

“Every time I returned from the tour with students, they would say that they would never look at the world in the same way again,” says Weindorf, Associate Dean for Research and the B.L. Allen Endowed Chair of Pedology in the Department of Plant and Soil Science at Texas Tech University. “Being there, seeing the changes, that was important for the students. That’s what we wanted to capture on film before Chien-Lu retired.”

Weindorf approached the SSSA board and other entities for funding after meeting about the possibilities for a documentary with Hunton, a two-time Emmy Award winner from the National Academy of Television Arts and Sciences in the Lonestar Region for his work in non-fiction directing. However, once the project started, the filmmakers saw the potential to create two projects. One became *Between Earth and Sky: Climate Change on the Last Frontier*.

The second film, titled *Between Earth and Sky—An Arctic Soils Perspective*, is an in-depth look at Ping’s Alaskan Soils Tour, and will be available for soil science students free of charge. “Any teacher or student wanting a film about Gelisols will turn to this documentary,” Weindorf says. The film will be available for download at several partner (USDA-NRCS, University of Alaska Fairbanks) websites and the main film website in the coming months.

**Beautiful Film, Effective Communication Tool**

*Climate Change on the Last Frontier* is a beautifully filmed piece. Using high-technology video and audio equipment, Hunton captured the beauty of Alaska, as well as the visible decay of one of the earth’s most important carbon sinks.

“The film examines climate change through the lens of impacts to native Alaskans, receding glaciers, and Arctic..."
As a soil scientist, accelerated thawing of permafrost is one of the BIGGEST soil stories of the new millennium.

As a soil scientist, accelerated thawing of permafrost is one of the biggest soil stories of the new millennium. As a soil scientist, accelerated thawing of permafrost is one of the biggest soil stories of the new millennium. I am proud to say that I was invited to take part and tell part of the story through participating in the field tour and the movie.”

“As Alaska is a unique place,” Lynn says. “It has talented people like Chien-Lu. The environment and latitude create conditions where the effects of climate change have been especially noticeable.

“Working on the movie Between Earth and Sky provided an amazing opportunity to add to the collective contributions of scientists and others across the state regarding climate change from the perspective of Alaska and the people who live here,” she says. “Between Earth and Sky allows us to share insights and perspectives from Alaska with those who aren’t intimately involved in soil and climate change science. David was inspired to recognize the tremendous legacy Chien-Lu leaves to all those he has taught. Working
with Chien-Lu as a graduate student allowed me to experience first-hand his incredible depth of understanding of permafrost soil ecosystems, not to mention his kind-hearted nature and sense of humor.”

Reaching a Broad Audience

Thanks to the film, others will now be able to experience the knowledge and perspective of Chien-Lu Ping. The filmmakers hope that being selected for the festival is just the first step toward a larger release to the public.

“I hope the film reaches a broad audience because I feel we’ve made a movie that not only displays the larger issues of climate change that we face as a species, but also tells the human stories of those suffering now, specifically in the Arctic,” Hunton says. “I’m proud to have directed the film and to have worked alongside David and my staff at Texas Tech Public Media on this crucial issue.”

Weindorf feels that Hunton’s experience helped to create “a visually stunning, beautiful film. Without Paul’s vision for the film, we would have just another video of people talking about soils—without showing context or relevance. It takes a special talent to take subjects like soils and ecosystems and bring them to life. What Paul and his team have created is nothing short of cinematic.”

Weindorf points out that there are many people who deserve thanks for making this project successful, including “the agencies who came together to provide funding to get it off the ground and believed in our message, the task force that developed the content and concepts, the amazing scientists featured in the film who gave us unprecedented access to places not open to the general public, and most of all, Paul and his team at KTTZ.”

The film also is scheduled for screening at the

European Geophysical Union (EGU) meeting in Vienna, Austria, in April, and a national film tour is being assembled. Weindorf hopes the film can be added to a video streaming service such as Netflix or Hulu.

SSSA members can show the videos to classrooms and their communities. Due to production of the film in Cinema 4K, Weindorf’s preference is to initially show the film in theaters that can accommodate the high quality video and audio to ensure the best experience. To schedule a screening of Between Earth and Sky: Climate Change on the Last Frontier at your school or in your community, contact David Weindorf directly at david.weindorf@ttu.edu or visit the film’s website at www.betweenearthandskymovie.com. Weindorf and Hunton are both available to provide a screening and moderate a discussion of the making of the film and the issues presented therein.

To find out more about the films and view Climate Change on the Last Frontier trailers, visit the website above. And, be sure to follow the projects on Facebook @BetweenEarthAndSkyKTTZ and Twitter #iAMbetweenEARTHAndSKY.

S.V. Fisk, Public & Science Communications Director for ASA, CSSA, and SSSA

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Exposed subsoil permafrost melting along the Beaufort Sea near Kaktovik, Alaska. Erosion cuts back into the tundra at a rate of ~5 m/year for hundreds of kilometers along the Alaskan coastline. The organic-rich soil above the permafrost then falls into the Beaufort Sea where carbon is liberated back to the atmosphere as carbon dioxide and methane. 
Source: David C. Weindorf, Texas Tech University.