DEPARTMENT OF
GEOGRAPHY
College of Arts and Sciences

Geography Newsletter

August 2020

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Geography

August Happenings

Well, this is not exactly how any of us thought Fall 2020 would be like. We're having the usual meetings and getting ready for classes, but things will look VERY different inside and outside the classroom. But let's just pretend for now everything is normal…

Meetings:

- August 11 – Department Meeting Part 1, 1:30-2:50 PM, Zoom
- August 11 – CAS Town Hall Meeting, 3:00 PM, Zoom
- August 12 – Department Meeting Part 2, 1:30-5:00 PM, Zoom
- August 13 – Graduate Program Orientation Meeting, 10:00 AM, Zoom

Classes start Monday, August 17.

To recap some summer events, in June **Kianoosh Hassani** successfully completed his comprehensive exams, and **Fernanda Ramirez Sáenz** did the same in July. Congrats to both, and onwards to their dissertation proposals so they can become PhD candidates.

Note that the "Fall Break", a random Friday in October, has been eliminated and now Fall Break is the entire week of Thanksgiving – progress!

Ch-Ch-Ch-Ch-Changes

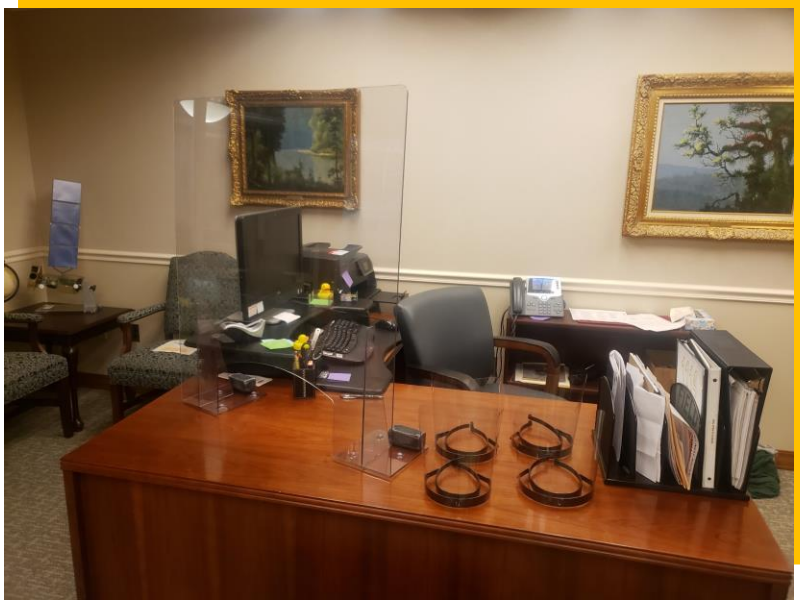
We bade farewell to our highly valued office staff Logan Stephenson and Amanda Zimmerman in the Spring due to the moves brought on by their spouses – Logan's wife got her PhD and Amanda's military husband got deployed to California. In their place we welcomed two new office staff – **Barbara Goodnight** (left) has taken over Logan's role as Administrative Assistant, and **Joanna Guevara** (right) has moved into Amanda's position as Administrative Support Assistant. Be sure to safely and socially-distantly meet them when you can in the main office (337)!

Also, we sort of said farewell to **Siewe Siewe Siewe**, who has been serving as a Visiting Assistant Professor since Fall 2018 while Jackie Vadjunec was at the NSF in Washington, D.C. However, due to the massive reallocations of classes and spaces, Siewe remains connected to the department as the instructor of online Cultural Geography (1113) in Fall 2020.

On June 19, 2020, the OSU Board of Regents voted to remove the name "Murray" from both Murray and North Murray Halls. All references have been changed to a temporary Social Sciences and Humanities (SSH) for our building and just Psychology for the former North Murray. It is expected to take a while for university committees to determine new names.

Ch-Ch-Ch-Changes (cont.)

Life in SSH looks different besides the new name/signage; Plexiglas shields in most offices and break rooms, hand sanitizer stands all over, and of course we're going to be seeing masked bandits everywhere we look…



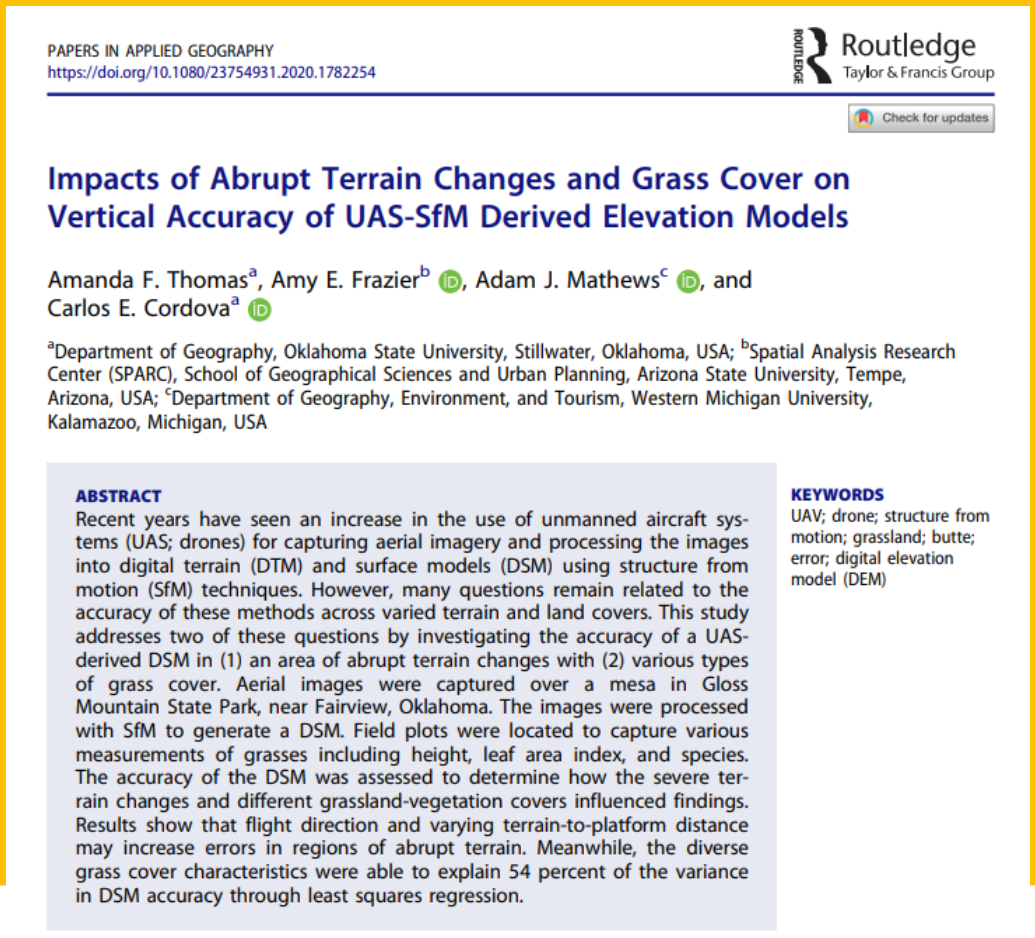
News from around the Department

Things sure came to a crashing halt this spring and summer; no study abroad, minimal field work (though some were able to continue), no Grandparent University, no workshops – but some signs of normalcy continued.

PhD candidate **Tom Cox** has been hired by the Department of Intelligence Studies, Geospatial Science, Political Science and History at Fayetteville State University in North Carolina. Tom's appointment is new tenure-track position. He plans to defend his dissertation during the next academic cycle.

Alumnus **Jordan Brasher** (MS, 2016) went on to earn his PhD in Geography in 2020 from UT-Knoxville and has landed a tenure-track job of Assistant Professor of Geography at Columbus State University in Georgia.

Alumna **Amanda (Thomas) Lind** (MS, 2018) recently published her thesis research in *Papers in Applied Geography* with some familiar co-authors…



PAPERS IN APPLIED GEOGRAPHY
https://doi.org/10.1080/23754931.2020.1782254

Routledge
Taylor & Francis Group
Check for updates

Impacts of Abrupt Terrain Changes and Grass Cover on Vertical Accuracy of UAS-SfM Derived Elevation Models

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ABSTRACT

Recent years have seen an increase in the use of unmanned aircraft systems (UAS; drones) for capturing aerial imagery and processing the images into digital terrain (DTM) and surface models (DSM) using structure from motion (SfM) techniques. However, many questions remain related to the accuracy of these methods across varied terrain and land covers. This study addresses two of these questions by investigating the accuracy of a UAS-derived DSM in (1) an area of abrupt terrain changes with (2) various types of grass cover. Aerial images were captured over a mesa in Gloss Mountain State Park, near Fairview, Oklahoma. The images were processed with SfM to generate a DSM. Field plots were located to capture various measurements of grasses including height, leaf area index, and species. The accuracy of the DSM was assessed to determine how the severe terrain changes and different grassland-vegetation covers influenced findings. Results show that flight direction and varying terrain-to-platform distance may increase errors in regions of abrupt terrain. Meanwhile, the diverse grass cover characteristics were able to explain 54 percent of the variance in DSM accuracy through least squares regression.

KEYWORDS

UAV; drone; structure from motion; grassland; butte; error; digital elevation model (DEM)