

## Cave Photography Session

Session Chair: Eugene Vale

Thursday, June 16, 2022 2:00-5:00pm

Location: Fine Arts 2

All who are interested in cave photography from beginner to expert are welcome to attend. Presentations cover in-cave, processing and post processing techniques.

### Session Schedule

Time	Presenter	Topic
2:00-2:05	Eugene Vale	Introduction to Cave Photography Section
2:05-2:25	Dave Bunnell	Focus Stacking techniques for cave photography: in-camera versus post-process in Photoshop
2:25-2:30	Break	
2:30-2:50	Peter Bosted	Cave Documentation with Photography
2:50-2:55	Break	
2:55-3:15	Michael McEachern	3D to 2D Conversion
3:15-3:45	Eugene Vale	Business meeting
3:45-4:05	Kenneth Ingham	Using the Godox AD200Pro
4:05-4:10	Break	
4:10-4:30	Eugene Vale	Photographing Bats
4:30-4:35	Break	
4:35-5:00	Eugene Vale	Photography Close-up

### Cave Photography Session Abstracts

*(listed alphabetically by presenter)*

#### Cave Documentation with Photography

Peter Bosted, [ivs17hi@gmail.com](mailto:ivs17hi@gmail.com)

The old adage, "a picture is worth a thousand words", is particularly applicable to the underground environment. A well-catalogued photo set can provide an order-of-magnitude increase in the information available from a traditional cave map, without going to the resource-intensive procedure of photo-gramitic mapping. To be useful, each photo needs to be accompanied by meta data. My solution is to make a spreadsheet which includes the nearest survey station, which way the camera was pointing, names of models, prominent features in the image, and date, a unique code for each image, as well as if the image was taken in 3D or 2D, type of lighting, and of course, the name of the cave. I will provide some examples of how this archive has proved useful in recent years.

## **Focus Stacking techniques for cave photography: in-camera versus post-process in Photoshop**

Dave Bunnell, [davebunnell@comcast.net](mailto:davebunnell@comcast.net)

Depth of field is often problematic when shooting masses of cave formations like helictites, or especially macros of smaller crystals. Use of smaller apertures is the standard way to try and deal with this but when working close to the subject this may not be adequate. In recent years focus stacking has become a popular technique though not commonly used by cave photographers. Stacking involves shooting a series of images with the focus point varied from the closest to the furthest point in the range. This can be as simple as two photos or as complex as a dozen or more, especially if shooting a macro. The resulting images can be combined in Photoshop, with a blend mode that pulls the sharpest portions out of each image in the stack. Problems with this approach are that the camera should ideally be on a tripod and the lighting needs to be consistent across frames. In recent years some digital camera models have incorporated focus stacking into the cameras. I recently tested this out in the Panasonic LX-10 which offers in camera focus stacking in post. This talk will compare results done with the camera versus using Photoshop, and some approaches for doing focus stacking in cave photos.

## **Using the Godox AD200Pro**

Kenneth Ingham, [kingham@ara.com](mailto:kingham@ara.com)

The Godox AD200Pro is a flash that is about the same size as high-end camera speedlights, but with several times the power. It has several features that make it a great cave photography light. It is high power, can be used with a bare bulb for all-around lighting, and has power control from 1/256 through full power. A large collection of lighting modifiers are available, increasing lighting options. In this talk, I will compare and contrast with traditional speedlights, and show and demo the flashes and some of the modifiers.

## **3D to 2D Conversion**

Michael McEachern, [cave3d@msn.com](mailto:cave3d@msn.com)

Changing 3D formats can make it difficult to keep up with the technology which is moving toward the metaverse and VR. Sometimes it is more convenient to use standard 2D projection when presenting caving to the general public. The current widescreen 1920 by 1080 pixel TV and computer monitor format is a target for re-visualizing vertical, square and rectangular 3D formats.

## **Photographing Bats**

Eugene Vale, [eugenevale@socket.net](mailto:eugenevale@socket.net)

Always a challenge, special considerations due to White-Nose Syndrome and COVID-19 make photographing bats while still observing good conservation practices even more difficult. I recently participated in producing some Bat Photography guidelines for the U.S. Fish and Wildlife Service. These will be presented and some techniques demonstrated.

## **Photography Close-up**

Eugene Vale, [eugenevale@socket.net](mailto:eugenevale@socket.net)

While much time is spent on the challenges of photographing a big room, close-up photography presents its own special challenges. Poor depth of field makes focusing and getting a sharp picture difficult. On camera flash units often miss the subject entirely. Through live demonstration this presentation will explore the use of close-up/macro lenses, off-camera and close-up flash units, and other techniques for getting a properly exposed and sharp close up image.