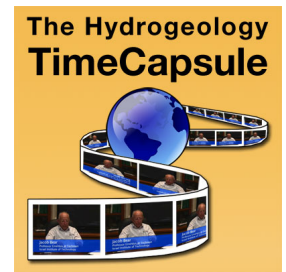


The Hydrogeologist TimeCapsule

Video production guidelines



Summary

The aim of this project is to interview eminent hydrogeologists from around the world. The interviews will be recorded on audio/video, edited and made available to the public as a podcast as well as streaming videos on the TimeCapsule project website.

Because different teams will produce the various interviews, there is the need to establish minimum standards and guidelines to insure a homogeneous style between the episodes, quality control, and facilitate the publication process.

Technical aspects

1) Video format

The filming will use a progressive digital video format with a 16/9 aspect ratio and 1080p resolution using a camera or DSLR with a zoom lens mounted on a video tripod to provide a stable image and smooth camera movements. It is not required to shoot using multiple cameras, but 2 or 3 camera angles will create a more interesting video and offer more flexibility during editing. If you choose to have multiple cameras, use the same brand/models and settings to get even colors and exposure.

2) Sound recording

Due to the nature of the video (interview), the clarity of the sound capture is important. For the classroom/conference video with the subject standing and potentially moving, a wired or wireless "lavalier" electret or dynamic microphone clipped to the shirt or tie should be used. For the interview around the table a lavalier or desk microphone can be used. The proximity is essential to avoid reverberation from the room and undesirable noise. Don't use the camera built-in microphone, as it is usually omnidirectional and will capture the ambient noise. To record the voice of people in the audience, you can use an additional (wireless) hand microphone or attach an external directional (cardioid or hypercardioid) microphone to the camera hot shoe that will capture the sound of the film subject. Most cameras and some DSLR have an external mic jack, but only (semi)pro models have the ability to record on multiple mono channel at the same time. For more control and a better sound quality, you can use an audio field recorder like the popular [Zoom H4n](#) to record the audio separately from the camera, or an external mixing console to combine the sound from the microphones and output to a field recorder or camera audio input.

Do a sound check before the actual recording to make sure the level and sound of every microphone is good. Prefer using manual audio gain on the camera over automatic gain control otherwise you would hear the background noise amplified during silences.

3) Lighting

A good lighting is important to the overall image quality: the more light, the better. Most classrooms are equipped with fluorescent tubes that produce a cold and narrow spectrum light which isn't ideal for video. If possible, use a warm source of light like halogen or tungsten lamps or wide spectrum LED lamps designed for video.

To get good colors on the video, it is essential to correctly set the white balance on each camera. Automatic white balance is okay for a single source of light but you should set the white balance manually in a multi-camera setup of when there are multiple sources of light (for

example ambient light from the window and fluorescent tubes). To set the white balance manually, film a matt light gray or white surface near the subject and read the instructions from the camera manual. If you are filming with multiple cameras, you should set the white balance manually on each of them using the same reference surface.

4) **Framing and movements**

When using a single camera, keep a midshot on the speaker most of the time. You can sometimes slowly zoom-out to a wider angle to display the background and other people, but then come back to the person speaking. Try to anticipate when a person in the audience will ask a question and slowly shift the camera towards him/her, especially if he/she is speaking for some time. Adjust the pan and tilt from the tripod for smooth movement.

When using multiple cameras, one camera should keep a midshot on the main character and the other(s) can offer a wider angle and shift to other people speaking.

5) **Editing**

You can either do the editing or provide us with raw audio/video with editing notes (chapters names and timing, name of speakers, questions asked). Use a non-linear editing software like Adobe Premiere or Final Cut Pro.

Each episode should begin with a black screen and then successively display the logo(s) of the sponsors, optionally the TimeCapsule logo, the name of the featured hydrogeologist and the title of the episode.

For introduction titles, center the text horizontally and vertically, use large white characters on a black or dark background with a bold sans-serif font (like Helvetica Bold).

The video should be divided in chapters of 3-15 minutes length. Try to use short chapters names. At the beginning of each chapter, insert a lower-third title (see existing videos as an example). The Time Capsule player display the list of chapters as links next to the video.

When a person is talking for the first time, it is a good practice to insert a lower-third title with his/her name, title/function and university.

When editing with multiple camera angles, each video track has to be synchronized with the audio by using a video clap or watching the lips. For transitions, use a simple 1 second cross dissolve or a direct cut. Avoid complex transitions.

6) **Output format**

The video should be exported in the **Apple ProRes** intermediate codec (MOV container) at 1080p resolution. This format will ease final editing on our side without losing too much image quality. You can use a file sharing service that can handle large files like Google Drive or Dropbox, or we can provide you an SFTP account on request to send us the video files.

For the Hydrogeologist Time Capsule project,

Sylvain Tissot

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