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Editing Research: Video Editing Léa Klaue, Eric Andreae

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The editing process gives meaning to moving images. It also extends far beyond the technical aspects of editing a film to encompass virtually the entire production process, from developing the initial idea for an image to selecting the right frame (framing), editing the material, adding soundtracks, making color corrections, creating subtitles, and cutting unwanted segments from the film. All decisions pertaining to the way the film narrative is conveyed are included in the editing process.

Videos are edited to make the filmed material more intelligible. During the editing process, decisions are made on the chronology of the narrative. For instance, what elements are presented to the audience first? The editing process renders the narrative more realistic and coherent. Video editing can intensify emotions, highlight specific aspects, and illustrate and convey complex narratives.

Video editing uses artistic interventions to transpose our three-dimensional reality to a two-dimensional medium. Editing can compress a story that unfolds over several days, weeks, or even years to an hour or less. Thus, the film does not depict “real time” but rather excerpts from different time intervals (“narrative time”). In academic, applied, and artistic research based on audio-visual tools, video editing varies depending on the goal of the research video. In the social sciences and fields of research that involve people or their activities, editing is an essential step that paves the way toward a deeper understanding of the material.

In an ethnographic film, as in a documentary film, scenes are structured much like in a feature film, with B-roll footage, voice-overs, and possibly music along with a variety of changing perspectives on the protagonists. Here the editing serves to reconstruct a sense of locality, people, and situations, while at the same time drawing attention to certain established facts or objects of research. For ethnographers, editing becomes a creative and subjective work in which they try to reconstruct a reality that only they (and a research team that may have been present) or the protagonists of the research have experienced in exactly the same way.

5.1 The Right Software for Video Editing

Software like Adobe Premiere Pro is generally used for video editing and provides functions that make it possible to import the associated video data via external hardware and compile it in a dedicated archive. If no external video sources are used, it is possible to integrate previously digitalized data into your project. You can add music to video data, insert still images, create transitions between clips, add sound effects, and include credits. Several video images can appear simultaneously, can be moved and manipulated, adjusted in terms of color and brightness, distorted, deformed, filtered, and blurred. Anyone who finds this too complicated can reduce any functionality to a few simple principles.

Generally speaking, video editing software requires a tidy, orderly working approach. A logical system of labeling embedded clips, sound files, still images, etc. is helpful, even for small projects: a short video can generate an archive with more than 150 elements. Files that are not being used should be removed from the project, and complex subsections should be cut into separate sequences. As is often the case with computer programs, video editing software offers a wide range of options that ultimately lead to the same goal. Everyone will develop their own method of working after a certain learning curve.

5.2 An Editing Process with a Plan and a Common Thread

Before you start editing, you should decide on the intention of your planned video. You may find it very helpful to outline a plan and—depending on the amount of video material—divide the video into chapters or subvideos. It is important that you have enough material to create the planned video and that you use the filmed material effectively. An initial review of all the material is helpful, and you should take notes and make lists.

If a great deal of material is available, it makes sense to create an overview document in which the material is listed chronologically and divided according to different locations, people, and/or topics. You can also note the type of images: interview, B-roll, event recording, sound recording, and so on. Such a document can be useful throughout the entire editing process when searching for specific images.

Filmmakers often underestimate how much time is needed for editing. Viewing alone requires considerable time, energy, and concentration. Allowing sufficient buffer time is an absolute must, especially if the production of the video is associated with a delivery deadline.

When planning the film, you should also think about what genre and what type of narrative format you intend to use. Popular forms include the classic journalistic short video and the “vlog” (video blog), which has a narrative character. In research and in the academic world in general, there are several styles that are often used. One of these is the observational film, in which the filmmakers attempt to make themselves as unobtrusive and discreet as possible to give viewers the impression that the film team was not even present at all: the “fly-on-the-wall” effect. Common terms for these types of documentary films include

direct cinema, cinéma vérité, and observational cinema. In contrast to an observational film, as a filmmaker you may opt for other forms of narration to make your own authorship and presence on the film all the more apparent. One can work in a “journalistic” style by relying on a narrator (perhaps the filmmaker/researcher can also serve as the narrator) who is present on location and on camera, introduces the undertaking, adds commentary, and in doing so conveys their own perspective on the research.

A similar effect can be achieved with voice-over, in which the narrator tells the actual story and guides the viewer through the events. This can be written in a more personal first-person form, or it can endeavor to remain more factual, objective, and descriptive. The voice-over can also be used to highlight issues in the video that could not be filmed or that cannot be presented visually (such as a background story, abstract concepts, and statements by people who do not want to be filmed).

It is also good to incorporate an occasional “breather” into the video. Moments in which a large amount of information is presented—or information that is more “difficult to digest” and takes some time to be processed by the viewer—should be followed by brief breaks. These intermissions can include B-roll scenes, landscapes, or background images. Music can also be added, if appropriate. Such moments can also be used to integrate texts into the video. Inserting texts, subtitles, captions, or titles can help guide the viewer.

If you intend to present the video in connection with a text that is outside the medium of video, you must take this into account during the editing process. Where and in what context is the video presented? Will it be inserted in the middle of a text on a website or next to an information panel in an exhibition? A voice-over that repeats exactly the same message as a text that the audience has already read before watching the video is counterproductive and tiresome.

The editing process should have a common thread. It is only when you have established the concept of the video and know exactly what story you intend to present, and in what form, that you can begin editing by selecting those parts of the video material that tell that story. These elements are placed on the timeline of the editing program. When all of the pieces that you want to include on the timeline are in the desired order, you have completed the rough cut. You can polish the rough cut and make modifications until you have created the intended statement and storyline.

From the rough cut, you proceed to the fine cut phase, in which you polish minor details: more precise beginnings and endings of sequences, sound corrections, insertion of B-roll material, etc. Fine-cutting also involves adjusting the rhythm of the entire video by closely examining the interplay of images and statements. Are only “talking heads” visible throughout the video? Or do you only see landscapes? A deliberate interplay of different settings renders the video more rhythmic and engaging, while an endless string of similar settings and repetitive statements can be quite tedious.

If necessary, colors can be corrected after the fine cut. At this point, you can add music, sound effects, or extra sounds as well as titles, lyrics, subtitles, and the credits.

It is important that the finished video be viewed as often as possible and shown to different people to obtain feedback. This provides an opportunity to correct any problems—elements that are poorly understood or even misunderstood—before the project is completed.

The best way to judge whether the editing has rendered the narrative coherent is to watch the video once again at a later date, after you have gained some distance from it. During the editing process, it is essential to allow for time in which you are not working on the editing, so you can look at the video again with fresh eyes and make any necessary adjustments.

5.3 Annotating

The Research Video annotation tool can be applied to any type of video, whether or not it was produced specifically for annotation. When working with the annotation tool, it is helpful to divide the video into several segments. Annotations draw attention to particular aspects of the video and highlight their importance, so it makes sense to create chapters and divide the video according to various topics. It is easier to take stock of several short videos, each with a dozen annotations, than of a single, long video with a very large number of annotations.

If you present a video with annotations, shorter and more straightforward videos are more viewer-friendly. The mp4 with H.264 Codec format is recommended for smooth importing and exporting with the Research Video annotation tool.

5.4 Image Sequences and Editing Styles

Sequences of images merge into a single, cohesive entity in the viewer’s perception, even if they are spatially and temporally separated. One image can have an inductive influence on the meaning and interpretation of the next one, and missing images are imagined in the mind of the viewer. The following approaches illustrate the principles behind the editing process.

Editing Styles

Narrative cuts	Space and time are structured and interrelated, jumps in time can be concealed. Films and videos rarely portray a series of events in real time; instead, they are condensed with omissions and jumps in time. (An individual packs a backpack. Cut. In the next scene, that same person is walking toward a hill. Cut. The person reaches the top.) The intervening details—how the person exits the house, etc.—are omitted, since the viewers are capable of piecing together these missing bits in their own minds.
Causal cuts	Shots that show a cause can be linked to shots that show an effect. If children are playing a ball game and a child kicks a particularly hard shot, then a cut to either the shattering glass (an off-camera sound effect, the window cannot be seen) or a visibly bursting window pane would be associated with the child’s action in the previous separate sequence.
Parallel cuts	Two spatially separate, but related actions are alternately intercut, switching the narrative back and forth between the two. This is a common dramaturgical means of creating suspense.
Rhythmic cuts	Short shots can create the illusion of fast motion; long shots can convey an impression of calm. Everyone unconsciously notices when an image remains on screen for too long. This, in turn, creates a sense of unease. The duration of the action depends on the image size, the storyline, and the desired effect.
Contrast cutting	When, for example, pictures of beggars and slums are combined with glamorous images of high society, a contrast is created. Striking image contrasts are easily perceived as symbols of real contrasts (in the example: poverty vs. wealth).

Audio Track

Language	Language can be introduced as commentary, a monologue, or a dialogue.
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Sounds	Sounds can accentuate actions.
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Music	Music can amplify or induce moods or connect scenes.
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Silence	Silence can create contrasts or amplify the sounds that precede or follow it.
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