

## Optimizing Workflow in Sound Post-production

**Legendary Greek sound mixer Kostas Varibopiotis was joined by location recordist/sound designer/mixer Leandros Ntounis and Persefoni Miliou (sound designer) to discuss the practical and creative processes in finalizing and delivering the audio mix. The session was introduced and by post-production producer Konstantina Stavrianou and DPC II's Florian Rettich.**

Varibopiotis kicked off by underlining the importance of sound in a movie, stressing how it creates feelings, helps the rhythm of the film, defines a geographical location, describes/builds acoustic space, indicates changes in time, defines/gives information on a character, draws attention to details within the mise-en-scene, works as a connector of previously unconnected characters, ideas or moments and eases the transition between shots or scenes. "Sound makes a movie better," he stressed, underlining the imperative to design a movie with sound in mind.

Most filmmakers, he reminded us, don't think about sound, or if they do, then very late within a production. A bad filmmaker will "discover the energy" of sound too late in the process, and his subsequent plea to the mixer to "please save me" will be made too late. A good filmmaker, on the other hand, thinks about sound from the very beginning, and forges relationships early with his or her sound technicians.

Location recordist Leandros Ntounis agreed, stressing how the sound engineer should be present even during the scouting process. "Sound is physics – it travels through the air and reacts to the materials." Therefore, optimum conditions for best sound should be set in pre-production, not on the day of shooting and never in post-production. Therefore the locations must be prepared acoustically with appropriate carpets, curtains and panels etc, and the sound should be tested accordingly. "This must be the rule," Ntounis underlined. "Sound post-production must start in the pre-production."

This also necessitates the careful pre-placement of microphones, making sure that rehearsals are undertaken, checking the location, allocating adequate time for sound prep and taking great care not to locate shooting close to production noises, such as generators. This can lead inexorably to ADR (dialogue re-recording), which directors and actors cannot bear. Just as important is the excellent organisation and naming of sound files and materials for delivery to post.

The workshop turned to the recording of wild sounds and room tone. At this point all delegates enjoyed a demonstration of room tone where we all remained quiet and refrained from moving, and experienced the particular qualities of the "silence" within the room. From a post-production perspective, if a line is cut in ADR, or if general dialogue is cut, then room tone is used to fill the gap. It is imperative, and its recording needs to be both respected and adhered to.

Also, while on set or in location a good sound technician will use whatever opportunity comes his or her way to record unique and bespoke sounds from the atmosphere/environment, ones that will not be found in a standard sound library.

Added DCP II's Paul Miller: "When directors are thinking of making a film they get very excited and work with the DP to create these mood boards and they go look at paintings and photographs to design the whole look of the film...That same thing should happen with sound. Is the film very internal? Is it a film about somebody who is always worrying about something and has an internal dialogue? Is it a spooky film? When you are thinking about a film it is worth giving the same care and attention to your sound design and the sound world as you would to the visual world."

Varibopiotis agreed, adding that when he tests a scene he does so with his eyes closed to gain the right sound balance. "Sometimes, just to listen to the sound (without accompanying visual senses) is very practical."

In sound post-production, decisions will be determined by the director, the sound supervisor, sound designer and mixer. The criteria is quite straightforward, the most important being the wishes and choices of the director (although the producer must play a key role in the decision-making too). Then comes budgetary necessities/restrictions, although Varibopiotis stressed how cutting costs can lead to greater financial outlay further down the line, telling how a recent production he was working on called for an expensive second sound mix to correct the first.

At what point does mixer Varibopiotis choose to become involved in the production? "I like to see the films for the first time in the mix, without scenario, without nothing, because I trust my instinct on the first view. I am the first person who sees the film on the big screen with the balanced sound from the guys here [indicating his fellow recordist and sound designer]. It's my way of working."

Sound designer Miliou said how her involvement begins at script stage. "You can influence the whole film as you discuss it from the beginning, from the scriptwriting. There are directors like Lucretia Martel for whom sound comes before the image. For her, sound is feelings. If you want to get into the feelings of the character, you should think about the sound. It is completely, completely connected...It is creative to discuss with all the sound team. It will give you this third dimension, and something much of the time that you discover at the very end of the film. It happens to me a lot of times where people have worked on the film without sound, then watch it *with* sound and they say 'now I get the feeling of the character, now I can *follow* the character.' If you give this chance your sound team, you can have double success [with your film]."

Miliou stressed how she and Varibopiotis have created their own instinctive modus operandi and shared sense of a sound language, a kind of "second sense" that requires little by way of communication or analysis. She stressed that this is what all sound production personnel should be looking to do. "You have to find and create your language. There is this particularity with sound that is not so real...But it is like the editing. Either it works or it doesn't [and] when it doesn't work it's obvious... Let's [just] find our language to communicate."

Varibopiotis discussed the 'reality' of the work he has to do. He will be given a deadline of one month for a festival submission (which most of the time will result in a rejection anyway). The composer will be equally stressed and the sound editors will have to clean the production dialogue, spot, record and edit ADR and insert sound effects into scenes that will probably be cut. All to cover every option for the director who is simultaneously and constantly re-editing of his material. 'This is the biggest problem, the re-edit of the film.'

Post-production producer Konstantina Stavrianou chipped in about the number of edits (and therefore mixes) that she must oversee within the "Greek" post-production system: "If we get lucky and the film is accepted to a festival then it is great and we are done, but if the film is not accepted then it is very possible that it is going for a re-edit, so everything goes backwards and we need to work [on it] again."

Varibopiotis cited the example of Theo Angelopoulos's *Eternity and a Day* which won the Palme d'Or in 1998, after which the director decided to change the ending (before eventually reverting back to the original).

The team was asked whether there was such a thing as a second unit in the location sound? And if not, should it be considered? Location recordist/sound designer Ntounis was not familiar with the practice but Paul Miller stressed how it is something he encourages on his productions, citing a movie he shot in Oman when the sound guys went out independently to record atmospheric sounds that subsequently went into a library for use on the production.

Varibopiotis proceeded to outline the deliverable requirements for different standards:

**Theatrical:** Surround 5.1, 7.1 Dolby levels  
Immersive sound ATMOS, DTS-X, AURO 3D  
No specific loudness

**TV:** Stereo and 5.1

Strict loudness levels and delivery specs with difference between EBU countries, ATSC countries and other minor broadcast unions.

**VOD:** Stereo and 5.1

Strict loudness levels and delivery specs with key differences observed between Netflix, Amazon, I-tunes and other platforms.

What is the difference, Varibopiotis was asked, between a cinema sound deliverable and a TV sound mix? He indicated with his arms the vast difference in terms of bandwidth between cinema potential (enormous) and TV (modest). The mix has to be therefore approached differently, "especially the loud scenes - loud music, this has to be compressed."

The same question was asked to the on-location sound experts, plus how is their work on location affected by a 5.1 demand? Do they record extra surround-sound wild tracks and is the room sound recorded in a different way? Or are there a lot of library sounds that can be applied later on to create the required sound size? "Yes, you need to record wild tracks in stereo surround formats," replied Ntounis. "Never in mono, we need extra tracks and extra channels, but the final format doesn't really affect the way we work with the main sound,

the dialogue and the synced sound. But extra sounds? Yes, they have to be multi-channel.” This will necessitate the use of more sensitive equipment, he confirmed, such as different standards of microphone.

When asked about how his sound work dovetails with that of the colour gradist, Varibopiotis pointed out how “the ideal is to [work with] the final colour of the picture. It is crazy but if you have a picture with too much light... you use high (sound) frequencies. If the picture is darker, you need more bass.” It was pointed out from the floor that for colourists it is the same, when there is a very rich soundtrack they have to tone down with the grading of the colours within the composition. “One thing is influencing the other,” Varibopiotis agreed.