

The recording studio ...in your pocket

Original recordings are a fascinating activity, there even is a real scene of „podcasters“. In the past, one would have set up his tape recorder, but those times are gone. The new formula's name is ZOOM, it hails from Japan and knocks on the head the way this topic has been thought about until now. Without anybody noticing, everything is being recorded today. But raising the matter will make law-abiding people wince: tape-recording concerts? That's illegal! Correct – but first: not always, and second: there are locations besides concert halls.

The technology certainly now is available to everybody. For less than 500 Euros you can record anything on a quality level which exceeds what a CD player is capable of rendering – so inconspicuously that nobody will notice! The recipe: the new ZOOM H2 four-channel digital recorder with good windbreak, the Soundman in ear microphones (OKM II K) and a dubbing at the computer.

All you can have

No, we are not going to wiretap neither the Vienna Philharmonics nor the Rolling Stones, they would have our butt. But if your daughter is singing in a children's choir, or your profession is to conduct interviews or to capture original sounds – e.g. the Vienna subway, noises of nature or a thunderstorm in Munich – then you won't need legal assistance, as recording all that is lawful. However, until recently high-class recordings required large equipment and lots of voltage.

That's different today: a device the size of an electric shaver records in surround on four channels and stores the sound in DVD quality on simple SD cards. There is no motor, which always causes background noise in tape recorders. And where there are no motors to be powered, two small batteries will last for more than four hours. That makes the whole thing smaller and lighter, it achieves better results and it will be operable for longer periods of time. You can carry it along in your pocket, it is invisible, all in all: much less hassle.

And it has become easier. Since long there have been people who for different purposes have been recording mountain brooks, the sound of stalactite caves, thunderstorms or chirping birds. That can be done by everybody on any stroll: in the future the archive of personal memories will not be limited to pictures, but will

contain sounds, noises, e.g. guided tours through the Schwaz mines or a visit to the Niagara Falls. This introduces a new era of acoustic recollections, moreover on a much higher level than what has been achievable with a dictation machine. The data need not necessarily be burnt on a CD but for the time being can be stored on your computer's hard drive or any other data storage unit. And, of course, such sound impressions can be shared by email.

What next?

You transfer the recordings via USB cable or a card reader. Editing is not required but may be advisable in some cases. E.g., the two respective stereo pairs of a surround recording have to be worked out with a special computer program. That can be omitted if the recording has been done in two-channel mode, as the ZOOM H2 is capable of using its four microphones to store its environs not on four, but just on two channels. Stereo-surround, so to say. While digitization of tapes or records meant that one had to grapple with hissing or crackling, this does not apply to that kind of material. Musical bits and pieces, demos or self-produced CD recordings can be made more interesting if transformed with a morpher.

This will manipulate not only speed, pitch and volume, but will influence the sound characteristics: such programs simulate rendering in highly diverse environments (e.g., mountain top, padded cell, concert hall, swimming pool etc.), they add reverberation or other, more or less useful effects.

Smaller but better

For a long time the good old tape recorders broadcast reporters used reigned supreme, although the Minidisc gradually outdid them. The ZOOM H2, however, eliminates all setbacks of outdated recording technology in one swoop while at the same time being markedly smaller and less conspicuous and delivering measurably superior results. Moreover, the cumbersome reading out of analogue tapes at the computer has been abolished. New recordings are stored immediately as WAV or MP3 file. And for digitizing records and tapes it is sufficient to connect the analogue reproducer to the line in of the ZOOM H2 and switch to „record“ - that was it.

Kasten 1. Seite:

No room for mistakes/errors

In the new world of digital recordings there is no pitch

control - which made the tape run faster or slower -, no Dolby, no tape selector. The rendition will reproduce exactly what you recorded. You can set digital tags or divide the files: if you're not sure when the action will begin, just start recording and cut off what you don't want to keep. Old demo tapes of a student band are dubbed in one go and partitioned later the same way. Who quickly wants to tune his guitar in the practice room or needs a metronome will find that the ZOOM H2 offers those little extras.

Students need not take notes as they can take away complete lectures. Rescue service teams can draw on recordings for evaluating operations together, and training courses will be remembered for longer periods.

It is important to upgrade protection – the included cloth pouch seems to be just a reminder that one should get a proper bag for his equipment. The camera pouch „Ridge 20“ - produced by Lowepro - fits precisely and is even available in different colours. Talking about protection, we should not neglect protection from wind - to eliminate the hissing and wheezing which can occur at microphones. The ZOOM's accessories include an adequate rubber foam cap, though it wears out over the years - and there are better options. RoVoTech offers a particularly high-grade cap - which tarts up your equipment with the eccentric mane of a funk musician, but completely blocks out even the slightest of wind sounds. It allows for recordings free from wind created noise - recommended for dealing with relatively quiet acoustic sources, e.g. birdsong. It is very convenient, as well, for conducting outdoor interviews.

Become your own stereo microphone

The upper league of surround recording is accessible with binaural microphones . Since decades demanding recordings have been made with special dummy head microphones which were positioned in the ears of an artificial head. Listening to those recordings with headphones delivers breathtaking depth as the brain processes the slightest changes in sound caused by the shape of the head and the ears. While usually a rendering over headphones gives the impression that the music is playing inside one's head, dummy head recordings enlarge the sound source range immensely. This high class technology now is available to everybody and can be taken along everywhere. As excellent dummy heads are very expensive and not even convenient, instead one simply uses an original head – his own. Put the Soundman OKM II K microphone capsules in your ears, interconnect

a small adapter (A3) and: record!

Authentic 5.1 surround sound

The recording requires just pressing a key twice. Sensitivity and sound quality have been preset (the range covers everything from studio quality down to the lousiest MP3 compression). While recording with the dummy head microphones in one's ears one should breathe gently and be careful not to cough, sneeze or clear one's throat. If that cannot be excluded, the ZOOM H2 is set up in the centre of events and then will be able to work even in four channel mode. Afterwards it is possible to create real 5.1 surround sound at the computer from the recording. It is possible as well to connect small lapel microphones. Such accessories – called Lavalier microphones – are available in a range of different prices and permit to largely suppress the surroundings. Those devices come with rather long cords and allow for bridging larger distances. And for those who want to collect pleasant memories of the time his child grew up: use them to bug the kid's corner.

The ear

One of our most complicated organs. Tiny membranes, cartilage and bones transmit sound waves to neurones which eventually reach the brain as electric impulses. How an acoustic image is generated there is still largely unknown.

March 2008
www.cd-austria.at