

Designing Sound and Silence

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Designing sound for various aesthetic or experiential purposes is not a new idea in architecture, acoustics, or various forms of mediated art. Since Walter Murch coined the term ‘sound designer’ to describe his work on *Apocalypse Now* (Coppola, 1979), it has also become more common to think of sound as designed in fiction film as well as in television drama. To consider mediated sound in non-fictional genres (such as news, sports, reality television etc.) as results of intentional design processes is less common. One may argue that the same applies to ‘live’ television in general, where one may not expect sounds to be ‘produced’ and designed as in post-produced fiction film. Thinking about *silence* as designed seems perhaps even less intuitive. This article will discuss how sound and silence is indeed designed in ‘live’, non-fictional genres too, using sound in sports as the main case in point.¹ The mediated character of sound and silence will furthermore be interpreted as signs of important changes in the communicative functions of sound and silence in broadcast media.

Taming ‘Wild Sound’

Large-scale sporting events, such as The Olympics, or world championships in various sports, appear on regular basis. Viewers are thus likely to be familiar with the spectacular camera work and imagery of recent major sports events. It seems that such events showcase an ever-increasing number of cameras give us multiple views and shots, instant replays and highlights in ‘super-slow-mo’. Such obvious signs of mediation bring Gary Whannel (1992) to claim that the audience watching televised sport is well aware of fact of the *mediated* character of such events, where the production team clearly makes aesthetic choices concerning the visual representation of events.

Elsewhere I have argued that diegetic sound in factual genres in film and television often appear less susceptible to sound design than the diegetic sounds in fictional genres (Maasø 1995). Furthermore, compared to a voice addressing us as listeners, or a musical sound being composed, performed and edited to a sequence of moving images, other ‘natural’ location sounds, such as of an audience cheering, an athlete panting, or the crisp sound of skis running down a slope, seem less obviously the results of a design process. This is, as mentioned, especially true for ‘live’ television, where one does

not expect designers to have the same control over the sound scape as in a movie sound track more or less built up from scratch in the post-production process.

Danish media scholars Raunbjerg and Sand (1998) are among those who claim that diegetic sounds² are not only less designed than other sounds or images; they even assert that this sound lacks an intentional mediation, and functions as a ‘stamp of authenticity’ or as ‘fingerprints’ of the event we are witnessing. They maintain that:

[...] wild sound [...] is the sound of the event itself. [...] [T]he sound viewers hear sounds like the sound which spectators who are physically present in the room are experiencing [...]. The ambient, spatial and, in some sense, less-than-perfect wild sound is a sign that the sender/producer level does not control the actor level. Consequently, viewers experience the televised events as an event that has a life of its own, above and beyond the intervention of the medium. One might say that wild sound is the fingerprint of the event on the media event, or a stamp of authenticity. (Raunbjerg & Sand, 1998:168)

If one wants to challenge the claims of Raunbjerg and Sand on the basis of concrete practices and examples – as I do – one is faced with certain challenges, as examples of ‘live’ sports are not readily available for readers to compare with a written account. Trying to represent and translate dynamic and shifting aural phenomena, into fixed, visual words on a page is hence no simple task. Somehow it seems easier describing the shape, texture and color of visual objects in writing, than the shifting shapes and textures of sound. And while one might insert a still image as an illustration in a paper based journal, this cannot be done with sound.

Elvis Costello partly addressed this problem in an amusing way in the much-cited phrase: “Writing about music is like dancing about architecture”.³ While this is certainly a challenge when addressing popular music, it is even *more* difficult when writing about other sounds from genres, where a writer cannot rely on the reader being able to consult a common available aural source, such as a recorded popular song. In order to address these basic problems I will follow two strategies below. First, I will provide a ‘general’ description of the aural examples. Secondly, I will refer the reader to four short sound samples available online.⁴

Samples of Sport Sounds

The first two examples are recorded from a cross-country and biathlon competition broadcasted on the NRK (Norwegian Broadcasting Company) in 1983.⁵ The first clip is dominated by the voice-over commentary of two sports anchors, speaking in a relaxed voice with moderate loudness, nevertheless drowning out most of the other sounds, which are much weaker in volume. In the background one can hear the muffled and reverberant sound of an emcee over a speaker system at the sports arena where the shooting range for the biathlon competitors is located. The distance one may also hear soft ‘ticking’ sounds that a television viewer understands is the sound of rifles being fired.

The second clip is from a cross-country competition, showing a skier passing two camera positions in the woods nearby the stadium area. The commentators’ voices sound roughly the same as in the first clip, as does the muffled emcee on the PA-system in the distance. In addition far away cheering can be heard from a few spectators, as well as the soft, yet characteristic, sharp sound of skis gliding over snow (roughly 4-8 and 14-18 seconds into the clip).



Biathlon skier in example 1 at the shooting range (NRK)

While the images accompanying these clips show the skiers in close-up and medium close-up perspectives shooting (in example 1) or skiing (in example 2), the main visual events in these clips are not central aurally at all. Instead, the sound track is almost totally dominated by the voice-over of the two sports reporters. From listening alone, one cannot guess that the first example is showing an athlete firing his rifle, as the shots fired in the background are very tinny sounding and low in volume.

In example 2 one can (with previous knowledge of how cross-country skis may sound) hear the skier as he passes close by the two camera positions following him (cf. 4-8 and 14-18 seconds into the clip). Apart from the few off-screen sounds mentioned here, no other sounds are audible from the location of the recording, as was typically the case before the early 1990s.

If one considers similar examples from the mid and late 1990s, the sound track sounds very different, as can be heard in examples 3 and 4. While the voice-over commentary is still central, the on-screen visual events have become equally important aurally, such as the clearly defined, medium loud shots fired in the biathlon case (example 3). Both the rifle shot and the immediately following hit on target are represented aurally – even with a stereo effect separating the two sound events in space.



Biathlon skier in example 3 at the shooting range (NRK1 1994).

Also, a wealth of other off-screen sounds within the diegesis – such as the audience cheering – is very clearly audible in the cross-country example from 1997 (cf. example 4). Put shortly, there are more and louder 'wild sounds' in sport events in the 1990s than before. The diegetic soundscape is also vastly expanded, as it condenses many 'spaces' into one rich and multi-layered soundscape spread out in two-channel stereo, compared to the mono track in 1980s television.⁶ Importantly, the condensed sound space of 1990s television also manages to represent soft close-up sounds (such as the athlete coughing, roughly 5 seconds into example 4) simultaneously with the loud 'deep space' sounds of the audience in the same example. Through the use of multi-microphone technique and multi-track mixing, the sound track of large sporting events in Nordic television thus changed within a few years during the late 1980s and early 1990s, into a rich, spatially expanded and condensed sound track, where both close-up and far-away events, on-screen as well as off-screen, were given equal aural presence.

Intentionality of Design

Interviews with sound technicians and producers in television show that these changes did not happen by mere chance, or simply as a result of the implementation of new technology, but rather were a result of institutional strategies and intentional acts of design concerning both sports and other TV genres. Veteran producer Trygve Sollien, responsible for many of the main productions during the 1994 Lillehammer Olympics, comments on some of these changes, saying:

I believe we have developed the sound track in sports a great deal. Earlier on, you might say that we 'registered' a sports event from afar, but today we try to come much closer on the athletes. The images are closer, and the same goes for the sound. So we try to come up close and, for instance, catch the athletes breathing and panting, or a coach giving instructions, and – of course – try to give a close up view of the audience itself. (Sollien, cited in Maasø 2002a, my translation)

The head of the sound unit for multi-camera and OB productions at the NRK comments the change in sound design in a similar way:

We try to create an *experience* for the audience, as we also do in other types of entertainment shows. We present a sense of 'being there'; in some sense we want you to feel that you are present at the event, even though you're sitting in your arm chair. [...] This means much more weight on the sound effects today than previously, both the artificial and natural ones. (Straumsheim, cited in Maasø 2002a, my translation)

The statement 'artificial and natural ones' may need a further explanation. Here Straumsheim is alluding to the practice of *sampling* introduced in sports in the early 1990s, i.e., playing back a previously digitized recording – a sample – as part of the sound scape the TV viewer is hearing as a 'live' representation of the soundscape at the location of the event. This was first used in sports production by two sound technicians from Finnish television (YLE) responsible for producing some of the ski events at the 1992 Olympics in Albertville. As producer Sollien explains:

In Les Saisies [at the 92 Olympics] we were producing biathlon for the French, while the Finns were doing cross-country. I think this was the first time I heard sampling done really well. The Finns had a sound guy who was devilishly skillful at sampling, and they used it for all it was worth. Everybody was complementing them for the great sounds of skis and ski poles and so on – everything sounded really nice. (Sollien, cited in Maasø 2002a, my translation)

The practice of sampling made it possible to design a sound track with close-up sounds of far-away events that were difficult or even impossible to catch by a microphone (as there is no equivalent in sound to the visual zoom lens, and because loud sounds of an audience would typically mask out the softer sounds made by the athletes). Many sound technicians after 1992 hence started using samples of a variety of typical sporting sounds, such as the sound of skis and ski sticks, shots fired in biathlon, the hit of a ball, the skis leaving the jump and the rush of air following a skier mid-air during a ski jump, the thump of the landing etc.⁷ Sampling thus provided sounds to on-screen events where silence was the alternative in earlier broadcasting. Furthermore, sampling was often faded in other situations when location recording became impossible during live location recording, such as when sounds of an aircraft or traffic suddenly ‘polluted’ the soundscape. A veteran sound technician in the NRK explains:

I remember an instance in the Albertville Olympics when Vegard Ulvang – I believe – was crossing the goal line at the same time as a big truck with snowbelts came driving in. I could hear how Jukka, who was doing the sound for YLE, pulled down the mikes from the arena while fading in sampled audience sounds masking the engine noise, and though that *that* was clever. (Henningsen, cited in Maasø 2002a, my translation)

A variety of sampled audience sounds were also often mixed in together with the ‘live’ audience sound to create a more exciting soundscape, or to achieve what Straumsheim described as a sense of ‘*being there*’. Thus, during the mid 1990s, sampling became a common way of controlling the uncontrollable aspects of the sound events in ‘live’ sports in Nordic television; in other words taming ‘wild sound’.

This highly designed soundscape is certainly far from the naïve indexical ‘fingerprint’ of sound claimed by Raunsbjerg and Sand above. Quite contrary, sound in sports, as in many other genres, became increasingly pre-planned and designed during the late 1980s and early 1990s. The *sound* of sports sounds can therefore be no positive proof of the authenticity of the events we experience, since deciphering which sounds are the result of sampling or live recording can rather be quite difficult, often impossible. Had I not witnessed the practice of sampling during TV production myself, I would, for instance, not have believed it possible to achieve the minute timing needed to perform the shots fired during a ‘live’ production of biathlon, such as in the example from the Lillehammer Olympics discussed above (cf. example 3).

The radical change from a ‘passive registration’ of aural events to an ‘active design’ of sound in sports, were intended to produce a spectacular, visceral or almost tactile viewing experience – letting viewers and listeners ‘touch at a distance’, to paraphrase Murray Schafer (1980). In my view these changes may be related to general aesthetic and cultural trends, such as the spectacular aesthetics of the neo-classical Hollywood cinema, the visual collage in television after MTV, as well as the multi-track aesthetics of popular music production after *Sgt. Pepper*. These changes are also clearly related to

general changes in televisual mode of address sparked by the deregulation of broadcasting monopoly during the 1980s and the increased weight on competition for viewers' attention, as many have addressed in previous research on public service broadcasting. Similar views are also stated clearly in interviews by key people involved in the changes in design, such as the following statement by Straumsheim:

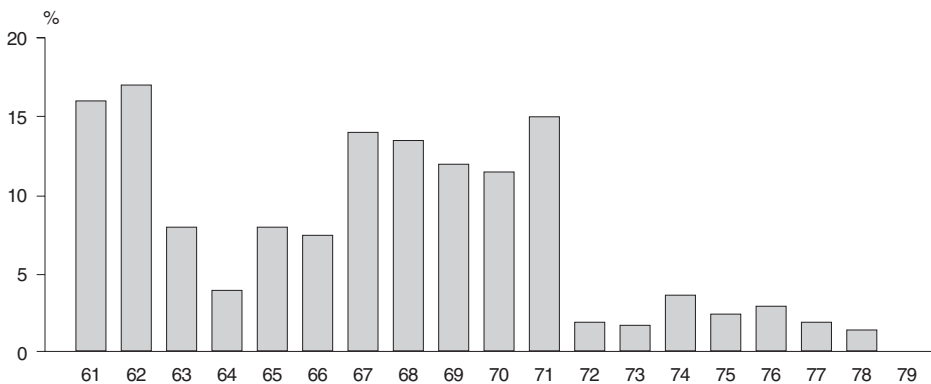
I believe the future lies in becoming even better at illuding *presence*. I do not mean that you actually *are* present, of course, but that you get a sensation of what it is like being there. At the same time this means designing a soundscape that is not always real. As TV becomes more like radio is today, a medium you go to and from, we need ways of catching viewers' attention, providing engagement and experience – not only registering an event. And this is, of course, nothing less than the general trend of our time. (Straumsheim, cited in Maasø 2002a, my translation)

Silencing Silence

As I hope to have showed so far, sound in television is as much a result of a designed mediation as the television image – even in genres with 'live', 'wild sounds', which some have taken as indexical traces of an uncontrollable acoustic event. Furthermore, the way sounds are designed may be used in attempting to read general cultural and aesthetic trends of our time. So may silence. In a similar way as sound, silence (here simply taken as the absence of sound) may be telling. In the following I will therefore first look at broad changes in silence on a 'macro level', showing to analyses of prime time schedules in Norwegian TV-schedules from the 1960s to the late 1980s. Then, I will analyze silence on a 'micro-level', looking at what silence in a popular song may say about design and mediation itself.

Although there are no continuous schedules preserved from Norwegian television broadcasts before 1983, there are other clear indications that silence was abundant the first couple of decades after television was introduced in Norway in 1960. A look at the schedules published in the TV times and newspapers, shows a large amount of planned intervals and pauses throughout the 1960s and 1970s, as may be seen in figure 1.

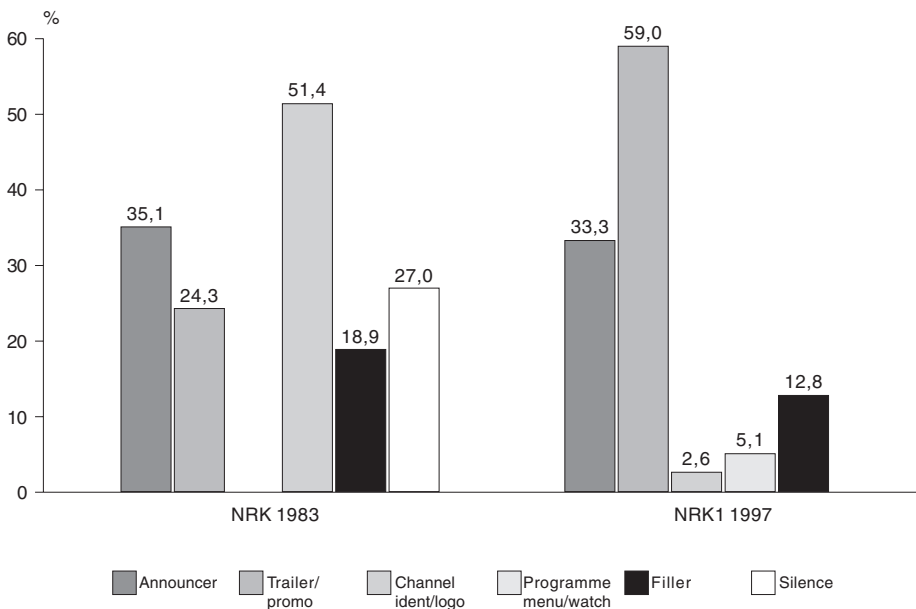
Figure 1. Planned Pauses, NRK, 6-10 pm, week 11, 1961-1979 (percent of prime time)



Source: *Programbladet* week 11 (March) from 1961-1979

Some of these pauses were, however, not silent, as gramophone music to some degree was played. However, both interviews and the statistics on music use published in the NRK yearbooks, indicate that many, perhaps most, pauses were silent (cf. Maasø 2002a). Since whole schedules are only available in archives from 1983 on, one is nevertheless left with speculations here. Analysis of prime time schedules from March 1983 and later during the 1980s, at least establishes beyond doubt that silence was indeed very much present in the prime time schedules in Norwegian TV throughout most of the 1980s, although no *announced* pauses can be found after 1979.

Figure 2. *Silence in Prime Time (percent of 'between programming')*



Between programming totals 3,7% (1983) and 3,9% (1997) of the evening schedules during one week between 6-10 PM, week 11 (March). Cf. Maasø (2002a) for a fuller account of the different types of 'between programming'.

As figure 2 shows, 27% of all 'between programming' during prime time were completely silent in 1983, while there was no silence whatsoever in 1997 schedules analyzed (with the exception of a few 2-3 second long silent intervals between scenes and segments). A handful of instances of up to 10-12 seconds of very *weak* sound may be found (cf. Maasø 2002a: 318), but the overall impression is nevertheless that the schedules here have the character of a seamless sonic flow. In my ears, the single most noticeable change in the sound of television from the early and mid 1980s and to post-1988 television is hence the large amounts of silent intervals in the prior case, and the complete absence of silence in contemporary television.⁸

This change is even more interesting when taking into account that silence has been a taboo for sound designers in TV since the beginning of broadcasting in Norway, as well as in other TV cultures, because it makes images seem 'dead', 'slows down time', and so on, as Mary Ann Doane (1985) and others have discussed more fully (cf. Maasø

2002a for a comprehensive account). With this in mind, the explanation for this radical change in the presence of silence is *not* that the conventions and role of silence changed. Rather, I would argue that this is related to a change in the hierarchy of textual units in television in Norway in the late 1980s, mainly due to changes in competitive environment, with the introduction of commercial competitors. In 1983 the intervals between programs were simply not considered part of television proper, but simply taken as intervals between the real programs; hence the usual conventions and rules of sound design did not apply. After 1987/88 the televisual text was not simply individual programs in succession, but the whole and continuous schedule. Hence, silence changed from having a role similar to in pantomime – a normal condition without any communicative importance – to a situation like in the theater, where silence is telling. Silence in the latter case is clearly a communicative activity to be interpreted in relation to what precedes and follows the silent pauses (cf. Jaworski 1993, Maasø 2002a). When the main unit of television became the ‘evening schedule’, silence thus became ‘dead air’ to be avoided in order not to loose viewers to the other channels.

As we have seen, the shift from marked presence to absence of silence on a ‘macro level’ may be interpreted as a meaningful sign of more general changes in television. Similarly, silence on a ‘micro level’ – small burst of silence, so to speak – may also be *designed* to create meaning in juxtaposition to events or discourse preceding and following. To illustrate this, I will in the following explore an example from a popular music song, where a few very small silent pauses are extremely important, and very well designed in relation to the music preceding and following. As I hope to show, silence here is pivotal for the understanding of this particular work as well as the act of *mediation* and *design* of this work. But in order to make this argument, I will have to take a short detour around some recent claims relating to mediation and materiality in the age of digital design.

Materiality in a Digital Age

In this age of digitization, one increasingly hears claims of *convergence* along talk of a ‘*post-medium*’ condition, reducing the role of individual media. In the following I will take as point of departure claims of convergence – more particularly assumptions that digitization erases ‘material aspects’ of sound recording.⁹

Writing in the mid 1980s, Friedrich Kittler is one of many contemporary scholars forecasting convergence. His claim is straightforward, and related to digitization:

The general digitization of channels and information erases the differences among individual media. Sound and image, voice and text are reduced to surface effects, known to consumers as interface. [...] Inside the computers themselves everything becomes a number: quantity without image, sound or voice. And once optical fiber networks turn formerly distinct data flows into a standardized series of digitized numbers, any medium can be translated into any other. (Kittler, 1999: 1-2)

Thus, not only will media converge, but also the very concept of a medium will disappear, according to Kittler and fellow critics. An assertion related to such claims, is that digitized media loose the ‘material qualities’ associated with the process of mediation in analog media. In their eulogy to phonography, Eric Rothenbuhler and John Durham Pe-

ters are among those who draw a sharp distinction between analog and digital media, raising interesting claims about the semiotic status of analog and digital sound:

In terms of the logic of the sign-referent relation, the difference between analog recording and digital recording is the difference between indexes and symbols in Peirce's scheme. The analog recording is an index of music because it is physically caused by it. The digital recording is a symbol of music because the relation is one of convention. (Rothenbuhler & Peters, 1997: 249).

Digital recording not only lacks an indexical relation to a physical aural event, in Rothenbuhler's and Peters' view, but the digital *record* – the CD in this case – bears no indexical trace of use. Digital sound can be reproduced without any generation loss and played back without any signs of time passed, hence digital sound shows no indexical signs of wear and tear of use. In contrast to digital sound, the playback of analog records:

[...] audibilizes two histories: one of the recording and one of the record. [...] The data encoded on the CD do not mix with the history of the disk; they can be obscured by dirt and scratches, but dirt and scratches cannot sound from a CD player. As the history of records speaks while they are being played, they thus invite us to think about the passage of time; by contrast, CDs obscure it. (Rothenbuhler & Peters, 1997: 255).

In order to discuss the assertions of convergence and loss of materiality of mediation in digitized recordings, I would like to use an example from Madonna's album *Music* (2000) as point of departure, before coming back to some general points at the end of the article.

Mediating *Music*

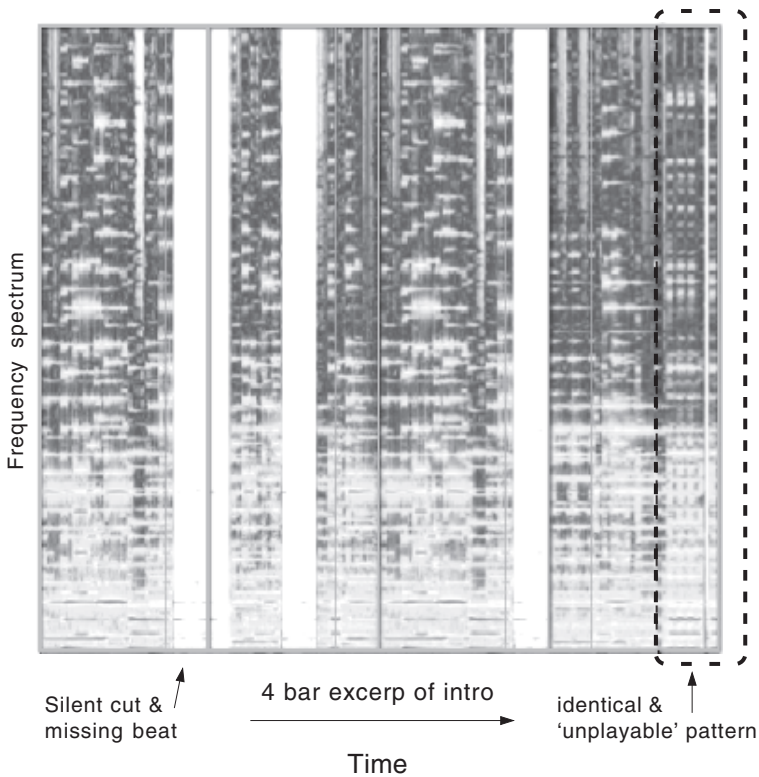
Madonna's *Don't tell me* from the album *Music* (2000)¹⁰ makes use of a format well known to a pop and rock audience. The instrumentation is in one sense modeled over the traditional lead vocal with band; the form of the song is binary with verse and chorus, etc. Along these lines, one might argue that contrary to the sound and texture of much contemporary dance music, which is almost unthinkable apart from recent technological developments, *Don't tell me* could in fact have been realized by means of analog tape recording techniques or in a live performance.

Even though the song begins with a familiar sounding acoustic guitar riff, the sense of familiarity soon ends when short bursts of silence and very short excerpts of the music are repeated out of synch with any familiar rhythmical pattern, creating the effect of what one may call a *digital 'jump-cut'*. The effect resembles a CD player having problems in reading the information on the disc. As we know this might happen when a record has become dirty. It may also be a sign of a 'worn-out' laser. In both cases, the effect is caused by various forms of wear and tear, and the sound may, thus, be understood as an index of use – in the sense that Rothenbuhler & Peters discussed analog playback above.

While it is reported that this effect caused confusion among many listeners who returned the CD¹¹, I would argue that most listeners would probably understand after but a few seconds of the first run-through of the tune, that the presence of digital jump-cuts here is not a sign of poor mediation. Rather, the effect is used as an artistic means. The following sonogram gives a visual representation of the digital jump-cut introduced in

the first few bars of the song, showing how the silent cuts (represented as white fields in the flow of the sound in figure 3) makes the music skip the first beat of the second bar, and how the last beat of the fourth bar has a very small sound bite repeated in a way which is impossible to achieve by a musician in live performances (both regarding the rhythm and identical sound), but which is easy to create with the practice of copy & paste.

Figure 3. Sonogram of the first four bars of Madonna's "Don't Tell Me" (Music 2000) analyzed by the Amadeus II software (www.hairersoft.com). Grids for bars and 4/4 beats are added by the author



Silence may – as mentioned – serve different functions in different media and communicative situations, such as in pantomime vs. the theater. One may, perhaps, even talk about a ‘*medium silence*’, such as the digital jump-cuts on a CD-player or ‘dead air’ in radio and television when the medium seizes to function. As shown in the sonogram, an extreme kind of such medium silence is what is generally known as ‘digital silence’ or ‘digital black’ – where all signals drop out, not even leaving the slightest hint of sound from the record itself, as would be the case with a cassette or LP. In the case of *Don't tell me*, the generic expectations raised by the acoustic riff during the first bar, drive us to expect a repeated – or developed – rhythmical figure in the following bar. When *silence* is introduced during the fourth beat, one may on the one side interpret this as an ‘active’ silence – in the sense as in theater above – raising tension and expectations for a return-

ing phrase or riff. On the other side, if heard as a complete silence (depending somewhat on the listening conditions and noise of the reproduction apparatus), this is clearly *not* part of such generic conventions, and thus appear strange, if not inappropriate altogether. When the riff then re-appears ‘mid air’ – so to speak – after the first beat of the second bar, it confirms this silent pause is as a missed downbeat and a cut-off phrase. One may therefore argue that the silence here is clearly marked as a ‘medium silence’, or digital ‘drop out’, and hence *not* part of the text or of the communication. Silence is in other words marked as a technical error, which drains the pause of the potential communicative force that might still have been there if the riff reappeared *on* the downbeat. Only when the *subsequent* silent pauses form a rhythmical pattern, does the frame change (yet again?), and we hear the seemingly random digital dropouts as highly meaningful, both rhythmically and otherwise.

As mentioned, it soon becomes clear that the presence of digital jump-cuts on this track is not a sign of a worn-out medium. In the beginning of the song, however, the effect still plays on the indexical meaning outlined above, signifying a form of digital ‘weariness’. Put differently, the presence of digital jump-cuts displays, by way of imitating a common malfunction of a certain medium, the function and presence of the very same medium, and – importantly – the presence of a digital medium, since such an effect could not have been realized in the same way, at least not to such an extent, by way of analog media.

If produced differently, for example in accordance with an ideal of reproducing a live performance, *Don't tell me* could perhaps have been used to support the claim that medium in the age of digital reproduction leaves no mark on the content. In this track, however, it becomes obvious that what could have been left to transparency is rather made audible. And more than this, it forms a crucial part of the overall artistic outcome. Not only may the use of the jump-cut effect on Madonna's *Don't tell me*, be interpreted as a play on the presence of a certain medium. It may in fact be argued that it has become an indispensable part of the song, since the audible interplay between the traditional format of a song and the new means of production comes forward as a crucial aspect of the meaning of the song, as regards both the domains of aesthetics and semantics.

In fact the dialogue between tradition and contemporary music technology links up with what might be understood as an overarching theme of the album *Music*, and, one might say, of Madonna's oeuvre in general, namely the play, re-invention and co-optation of stereotypical identities and forms. Much in parallel to how Sean Albiez (2004) describes her visual image as “a hyperreal urban/rural cowgirl ... a club version of the Western look”, the musical solutions of *Don't tell me* point toward a similar artistic strategy in the field of music: *Don't tell me* is the club version of country-pop.

The traces of the process of mediation, whether that be the play on the presence of a digital medium or the iconography of Western values, transforms country & western – a style connoting authenticity and traditional American values – into its own hyper real travesty.

Media Matters

Convergence is often used as a ‘totalizing term’, covering everything from black (or white) boxes to markets, networks and rhetorics. The fact that music is *distributed* digitally, and that this form of distribution is shared with other digitized types of informa-

tion – pictures, text whatever – does *not* mean that music is no longer different from graphics, or that radio listening is no longer different from using the iPod.

The first time I heard *Don't tell me* was on the radio, and for the first couple of seconds I was convinced that the silent pauses – appearing ‘out-of-time’ with the strong, driving rhythmical guitar figure – was a sure sign of a ‘bad disc’. Soon, however, I burst out laughing at yet another of Madonna’s clever tricks. For fellow radio listeners, there was no way of knowing for sure *listening* to the musical text alone if the song was played back from an LP, CD, or a hard disc, for that matter. This points to the well-known problem of making judgments about the material traces of technology and mediation solely from listening. As Umberto Eco wrote three decades ago, it is a fundamental characteristic of *any* sign that it can be used to tell a lie (1976: 58f). Any act of mediation thus introduces something ‘between’ the original sound (if such exists) and the listening to this sound. The hiss of history often heard on CDs, may thus be a sign of a digitized version of a vintage recording – as well as a post-80s pop-production parasitically sucking authenticity, grandeur, and historicity from the scratches of an old record.

Moreover, when it comes to TV or radio listening, whether or not *Don't tell me* is produced and transmitted by analog or digital means, is in some ways subordinate to the role of television and radio *as media* for the shaping of the sound of the song. For example, institutional and economic factors such as casting and signing of artists to fit TV and radio play, as well as generic constraints of radio formatting (cf. Maasø 2002b), have no doubt played pivotal roles in the shaping of popular music sound in the past, and there is little evidence to suggest that such structural and economic factors in the cultural industries will cease in importance in a digital future.¹²

Mediation and Communication

The analysis of sound and silence in this article tells but a small part of the story of mediated sound design, heard from a small corner of the world. Other television cultures and genres sound and design sound differently. Yet, at least one point is common to all: all mediated sound is just that – mediated – and therefore in some sense always designed. Sound and silence in the media therefore have no direct, indexical relation to an acoustic event, but always involve the possibility of elaborate design, and lies; digital or not. The use of sampled shots in sports and Madonna’s clever silences thus highlight the need for close textual analysis, as well as bring out the potential problems of taking texts at face value. In both cases we may be (or have been?) tricked by our ears – as we in other cases may have been by our eyes. Interviewing and observing sound designers at work, is therefore an important source for triangulation, and should, I believe, be used more often in tandem with other forms of analysis.

As this article has showed, much have changed in the way sounds are mediated. In the 1980s sports was mainly a visual genre. Sound technicians put up a couple of mikes (a handful at the most), and did relatively little to design sounds for particular purposes, save ‘registering’ the event. Since the early 1990s, much more effort is put into the design process, from days of preplanning where to put up scores of mikes – to pre-producing sounds used in live broadcasts through sampling. Sound design in sports is hence an excellent sign of our times. For during the last couple of decades, sound design in television, film, computer games etc. has clearly taken on a more *tactile* role, standing in for the lack of touch, letting listeners and viewers have an increased sense of ‘touching

at a distance' – or being *there, here*. More than before, sound design is also designed to be *heard as designed*. Even *silence* is meant to be heard as designed, i.e., as part of the overall sound design. Sound design has thus perhaps increasingly become a sign of an *act of communication*; of being wanted to be heard, to be recognized. Perhaps both designers, musicians and scholars, then, are basically alike: In the end, we just want to be loved.

Notes

1. With the exception of the Madonna example analyzed later in the article, this article is based on the material gathered for a larger study on sound in television (cf. Maasø 2002a). This study analyzed programs broadcasted during one week in March in 1983 and 1997, with some supplementary material between 1983 and 1997 (totaling 80 program hours). Furthermore, 24 interviews with program makers, producers and sound designers were performed, as well as analyses of internal documents in the two main Norwegian broadcasters NRK and TV 2.
2. Diegetic sounds refers sounds which can be heard on the location where a television program is shot, such as a sports stadium, or by other characters within a fiction film's story world. In television, diegetic sound is often called 'location sound' or 'wild sound'.
3. Cf. "A Man out of Time Beats the Clock" in *Musician magazine* no. 60 (October 1983: 52).
4. The first sound clips are also available on the CD-ROM accompanying Maasø 2002a, and may be ordered by contacting the author at arnt@maaso.no.
5. The programs analyzed here are selected from sports broadcasts during week 11 in 1983 and 1997, and the 1994 Olympics at Lillehammer. The excerpts are available as audio files at www.maaso.no/biathlon83.mp3 (clip 1), www.maaso.no/crosscountry83.mp3 (clip 2), www.maaso.no/biathlon94.mp3 (clip 3), www.maaso.no/crosscountry97.mp3 (clip 4).
6. NICAM stereo was introduced in Nordic television around 1990.
7. Sampling was sometimes also used to *save time* setting up the (often) hundreds of mikes needed to fit the new ideals of sound design (cf. interview with Straumsheim in Maasø 2002a).
8. The change around 1987-1988 is discussed more fully in Maasø 2002a, and related to general changes the competitive situation as well as concrete executive decisions by the new director of the NRK television, Tor Strand, who announced as his first main program mission to 'get rid of the TV clock' (Maasø 2002a: 92); in other words the silent intervals which stopped the 'flow'.
9. The following section on Madonna's *Don't tell me* is part of research performed by Anne Danielsen and Arnt Maasø in cooperation, first presented as a paper at the IASPM conference in Rome, July 2005 (cf. Danielsen & Maasø 2005).
10. Mirwais Ahmadzai and Madonna are credited with the song, though the song was originally written by Joe Henry, Madonna's brother-in-law. Cf. http://en.wikipedia.org/wiki/Don%27t_Tell_Me_%28Madonna_song%29
11. Cf. http://en.wikipedia.org/wiki/Don%27t_Tell_Me_%28Madonna_song%29
12. Also important in considering claims of convergence, listening practices will likely not converge, but rather diverge, as we are provided with even more possibilities for mobile and private listening on a presumably increasing number of different listening devices.

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