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MEDIALISED SOUNDS

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## Experienced Past Soundscapes of Industrial Noise: Cultural heritage?

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# Experienced Past Soundscapes of Industrial Noise: Cultural heritage?

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## Jepp Hauge Bæk

The author is MA in history from Aalborg University, specializing in cultural heritage. In 2022 he helped create a new sonic lexperience at Støberimuseet (The Foundry Museum) at Nykøbing Mors.

In 1993 silence descended on Nykøbing Mors, a small town in the northwestern part of Jutland, Denmark. One of the city's renowned and most noisy industries, the iron foundry Morsø Jernstøberi had its last day of production. The iron foundry was, and still is, the pride of the small island, but from the middle of the twentieth century and onwards, complaints about smoke, dust, tremors, and noise created public friction between local residents and the factory. During the final days of production, a local tv-producer captured the iron foundry's dying breaths and local historian, Susanne Overgaard, was asked to reflect on the significance of the event: 'Then there's the actual sound, the life surrounding it. There are no longer people coming and going. You don't have that daily rhythm that serves as an undertone to life here. It's not something you think about daily, but as soon as the production ceases here, the silence will be ominous and significant.'<sup>1</sup>(Fig. 1, p. 3)

Overgaard's remark captures the absence of noise as a loss of intangible cultural heritage. It was central to a way of life, a rhythm of the town that has now been lost. The factory noise shaped a local identity and connected local workers and residents to the century old history of the foundry. The complaints of neighbours with little or no dependence on the factory are preserved in newspapers and municipal documents. The most colorful protests came in 1972 from students of the gymnasium asking for gasmasks to be able to breathe the toxic air enveloping the town.<sup>2</sup> But the voice of the workers, who were first-hand earwitnesses to the noise, has not been heard until now. Through semi-structured ethnographic interviews,

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1 Rawtape of "Den sidste støbedag", 1993, Tape: S-181. Unregistered. Located at Morsø Lokalhitoriske Arkiv. Timecode: (32:19-32:44).

2 A. H. Espersen, 'Røgen fra byens bankende hjerte', *Viljen til Velfærd, Velstand og Vækst*, ed. Michael F. Wagner (Aalborg: Aalborg Universitetsforlag, 2018), 127-135.



Fig. 1: The iron foundry in the heart of Nykøbing Mors.

I have recorded their experiences of working at the noisy factory as part of my master's degree internship.

I was tasked to implement the noise of the foundry into the Foundry Museum. The goal was to create a new layer of understanding and communication in an otherwise silent exhibition, and to make the information more accessible to all through sensory stimulation. According to Bubaris this enables the creation of new paths of learning, interpretation, and understanding through the experience of non-aesthetic sounds.<sup>3</sup> Ferrarini and Scaldaferrri believe that introducing the sounds of the past might make the museum become a place where: 'communities are momentarily brought together in shared temporality and space'<sup>4</sup> thus making the soundscape an exponent of cultural heritage that brings back the now lost sound culture of the town. This paper will sketch out only the most important finds of my study through the analytical framework of Bijsterveld's *auditory topoi of technology*, and how the workers experiences were transformed into noise and finally integrated into a museum exhibition.

3 N. Bubaris, 'Sound in museums – museums in sound', *Museum Management and Curatorship*, 29:4 (2014), 395.

4 L. Ferrarini and N. Scaldaferrri, *Sonic ethnography: Identity, heritage and creative research practice in Basilicata, southern Italy* (Manchester University Press, 2020), 1.

## Analytical framework

Bijsterveld's auditory topoi of technology, originating in studies of western literature and newspapers, helps describe how the respondents perceived and felt about the different sounds and noises. Bijsterveld studies concentrated on understanding opinions on noise in the 19<sup>th</sup> and 20<sup>th</sup> centuries, and how these opinions were *dramatized*, ie. how opinions were described using different *topoi*. This typology focuses on the overall positive or negative evaluation of the sound and the *quantity, distance, direction, and rhythm* of it, which I call components. Bijsterveld suggests four categories of dramatizing sound: *intrusive, sinister, sensational, and comforting*.<sup>5</sup> The intrusive and sinister sounds have an overall negative evaluation, while Sensational and comforting are positive. A high quantity of sounds are perceived differently according to the overall evaluation. A positive evaluation of a high quantity might be the enveloping and positive tension felt leading up to concert with a multitude of people excitedly talking around you. A negative evaluation could be standing next to a highway. Thus the overall evaluation determines how the different components are perceived while also giving the sounds a spatial element. Different categories will be explained when occurring in the analysis.

## The Foundry Museum and the new soundscape

Støberimuseet (The Foundry Museum) is situated in one of the few remaining buildings of the large factory complex. The museum deals with industrial, corporate and working class history which in Nykøbing Mors is almost synonymous with Morsø Jernstøberi. The museums host 3 permanent exhibitions and occasionally a special exhibition. The first exhibition tells the story of how the business rose to fame and importance from 1853 onto present day, while the second exhibition is a nostalgic look through the plethora of household objects, that many Danes have a relationship with. [Billede?] Lastly, the story of production is told by a recreation of all the different sections of the factory squeezed in to one hall. A path takes you through woodworking, smelting, casting and much more, each in their own separate spaces. The story is told through texts, pictures, and a lot of objects, and as of the spring of 2023 a new soundscape, which was founded on the former workers' experiences and my analysis of these. The new contents were all produced by the author.

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5 Karin Bijsterveld, *Mechanical Sound* (MIT Press, 2016), 43-50.

## The interviews

The central part of my investigation centered on semistructured interviews with 11 former employees between the ages of 59 and 81, eight men and three women. The first part of the interview focused on their work and tasks at the factory, while the second part focused on their memory of sounds. The findings in this chapter is based on the second part. The museum facilitated contact with 1 informant, who then knew other potential informants who then knew other potential informants. Most of them worked at Morsø Jernstøberi most of their lives, while some had only been there temporarily. Two had worked solely in the offices, one as an office clerk and another as an architect/designer. Most of the informants had worked in the production areas, while some held positions with a mix of office work and tasks in the production space. Overall, the interviews shed light on most aspects of life and work in the factory, including aspects related to gender.

Generally, the informants remembered and evaluated the sounds of the factory as neutral or positive. They agreed that the factory was a noisy place but also that you got used to it. Some of them even described the noise as a kind of homely atmosphere, with objectively very noisy sounds over time blending into their everyday experience as background sound. An example they gave of this was the extremely noisy scrap metal yard, where forklifts deposited used iron with a tremendous clamour, which most of the informants got used to after working at the factory for a while. These sounds were dramatised as comforting, as they were a single sound coming from afar with an unspecified rhythm.

The casting and smelting hall (called the foundry hall) were at the centre of the factory site both spatially and sonically. Every informant described the monotonous and constant noise emanating from the heavy machinery. In the 1970's a new casting machine, the *Disamatic*, were introduced to the halls, replacing most of the older and smaller machines with a few big ones: The *Disamatic* combined several processes into one big machine. This created a more predictable rhythm for everyone who ventured there – also from the office. The monotonous soundscape did not please everyone. One informant, anonymised as Keld, former worker in the casting and smelting hall, remembered the older machines and their irregular rhythm as: “cozy music.”<sup>6</sup> He dramatised the *Disamatic* as switching the sounds of the hall from sensational to sinister – from a positive enveloping sensation of a multitude of noises to a negative experience of a low quantity of noises but with the other sound components remaining the same. This is proof that evaluation of soundscapes is very subjective, as the other respondents were either neutral or positive about the shift, but also that Bijsterveld's categories don't fit every

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6 Interview with Keld, Timecode: (33:09-35:00).



Fig. 2: Informants looking at the foundry hall video during a test of the new soundscape. Here observing a worker emptying the ‘oven’ at the end of the workday.

example, as Keld’s description of the components fit the sensational category in everything but overall evaluation. Generally, the sounds of the foundry hall were dramatised as sensational though: a high quantity of sound with a regular rhythm enveloping the workers. The monotonous pulse of the foundry hall was a part of the factory’s sonic identity, according to the informants. (Fig. 2)

The cleaning chamber was where the cast raw products were ground which created a sharp and almost otherworldly sound according to the informants. The informants evaluated the sounds as negative. The chamber had a high quantity of sounds, but most sounds were dominant when close to the source. This created a room with very little depth, making it impossible to use the sounds as spatial orientation. The sounds had an irregular rhythm and were dramatised as *intrusive* in Bijsterveld’s terms. It was a place no one wanted to go if not necessary. The intrusive sounds hindered any kind of sonic interaction with co-workers, which made the experience of the soundscape very discomforting. (Fig 3, p. 7)

The cleaning chamber and the foundry hall produced the two most important sounds. The sounds from the foundry hall were heard throughout the entire factory site, while the intrusive sounds of the cleaning chamber were contained within the chamber, as was the sounds of most indoor workshops, which could not compete with the outside noise of the scrapyards paired with the monotonous pulse of the foundry hall. Workshops for woodworking and smithing were also remembered and dramatised as sensational by the informants, even though they objectively were noisy. Aside from the otherworldly sounds of the cleaning chamber, the in-



Fig. 3: A worker grinding a drinking trough for cattle, sparks flying. Picture from video shown in exhibition.

formants did not express any discomfort with the noisy nature of their workplace. An important part of the evaluation of the noise were whether the space enabled social interaction. The overall experience of the soundscape of the factory site was dramatised as sensational, with a multitude quantity of sounds from different areas, immersing the workers in their daily, regular rhythm.

### Noise in the museum

The interviews demanded that the sounds of the cleaning chamber and the foundry hall should play a central role in the museum soundscape. These were implemented by B-roll material from local TV productions about Morsø Jernstøberi, thus consisting of both video and sound [indsæt eksempel]. Non-diegetic elements were also introduced, which won't be discussed here, as this focuses solely on the diegetic elements creating a coherent soundscape. Below, I have drawn up a map of the exhibition showing the implementation of the soundscape. All sounds, except interview snippets, are looping and constantly playing. (Fig. 4, p. 8)

The foundry hall is at the centre of the exhibition, from which a constantly underlying, monotonous, tone emanates throughout the rest of the exhibition, commemorating and interpreting the sonic cultural heritage of the foundry. The sound of the scrapyard is also played on loop, which can be heard in most parts of the exhibition but blends into the general noise. The sounds of the smithing forge and woodworking-station are less loud and thus contained within their sections of

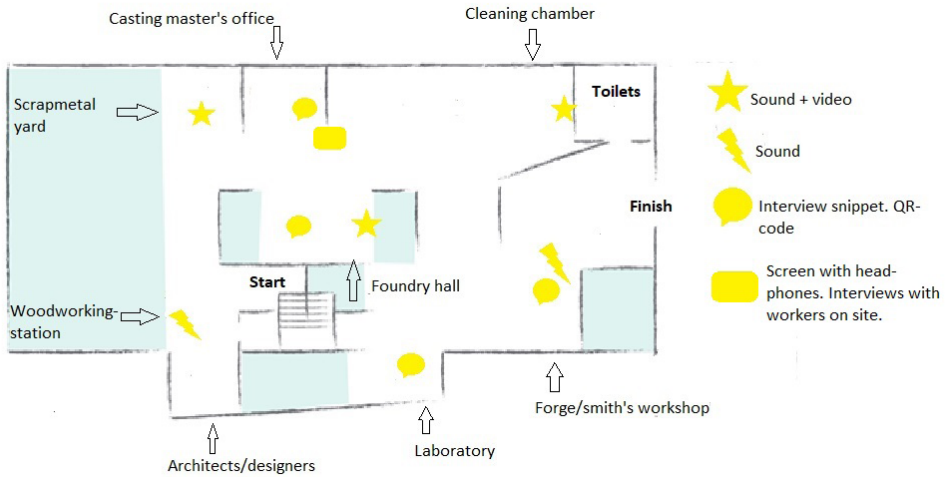


Fig. 4: Map of Exhibition. Map by Museum Mors, annotation by the author.

the exhibition. It was a challenge to create this separation in an exhibition with no solid wall structures separating each section. The sounds in the forge and wood-working-station, were recorded live in a workshop and at local volunteer smithing museum Morsø Gamle Smedje (Fig 5, page 9).

When standing at the forge in the exhibition, the whining of grounding and the clamour of vibrating iron can be heard, both coming from the cleaning chamber area. The whining sounds should not be heard outside the area, but the clamour of vibrating iron was situated between the foundry hall and the cleaning chamber when the factory was functioning. The cast iron was placed on a vibrating conveyer belt, which was heard all over the factory site. The combination of these sounds in the exhibition was a compromise between the different areas' sonic authenticity and wanting to exhibit the central noises, as the combination breaks the area-specific sound of the cleaning chamber but makes the vibrating sound more prominent in the exhibition.

## Reception and further work

Before launching the new soundscape to the public, I had a few of the informants come in to go through the exhibition and answer a few questions afterwards regarding their experience of walking through the exhibition and how the soundscape contributed to it. The informants who participated in the test found the sounds and soundscape authentic despite the difference in sound quantity and intensity. They recognized their memories in the soundscape. They liked that it was possible to talk, and that the volume did not match the actual sound levels of the past. The compromise regarding the sounds from the cleaning chamber was





Fig. 5: To the right you see the foundry hall. Behind the two men, you can glimpse the cleaning chamber. The test took place shortly after the annual Christmas market, hence the festive decorations.

not remarked upon in a negative way, but highlighted as positive, as the horrific sounds made the informants intrigued to go to that area. Furthermore, they did not notice that the sounds carried over from other parts of the exhibition, which was the intended experience for the sounds from the foundry hall as well as the scrap yard. Thus, the dramatisations are still sensational according to Bijsterveld's categories, but in a more area specific sense which was unintended. They were mostly drawn to the sounds accompanied by videos, which suggests that the non-aesthetic noisy sounds work best when drawn into a more narrative structure. The soundscape did not have to be objectively correct to deliver an authentic experience according to the informants.

The informants' experience of the exhibition is obviously biased by their affiliation with Morsø Jernstøberi and their contributions to the soundscape. To other people the soundscape might just be a cacophony of industrial noise, which then in turn would only make it a more authentic experience for the outside listener – or possibly disgruntled neighbour. A new generation gets access to understanding the sonic aspects of the industry's part in Nykøbing Mors' history. A new test will help to understand how industrial noise can support identity building. The factory sounds played a central role in the daily life of the employees and in the town as a whole. Can reviving this past soundscape help create a new sense of a local identity that used to be vibrant with noise but now is mostly silent? Not through "cozy music", but rather a cacophony of sounds both intrusive and sensational?

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