RESONANCE OF SIREN SONGS

Conditioned by the vocal alphabet

Homer´s *Odyssee* has been among the first oral poetry registered by the vocal alphabet as the very condition of passing Homer´s epics in a post-oral poetry age. According to Barry Powell's thesis, the explicit addition of single vowel symbols to the known Phoenician alphabet has happened in early Greece for the xpplicit purpose of recording Homer´s epic. Thus the sonicity of the human voice which resides in vowels could be registered in an early form of grammo-phony.

According to Marshall McLuhan, different from its actual massage, the content of a new medium (or rather cultural technique, in this case) is always the previous one. For literally *gramma*-phonic literature in alphabetic writing, this is oral poetry.

With explicit letters for notating phonetic vowels, what had remained exterior to writing - the voice, as poetically expressed by the Siren songs - enters the writing scene itself. This "heating" of writing has a hypnotic consequence.

The theoretization of the Siren songs requires a differentiation between sound as physically measurable and (Fourier-)analyzable event on the spot as opposed to symbolically written sound as phonetic alphabet.

Auralization of Sirenic voices

Auralization makes implicit, latent sonic situations explicit, that is: accessible for human hearing. This method becomes a tool, an auxiliary science (German "Hilfswissenschaft") for exploring a new kind of sources (rather than "evidence" which is a visual term) in historical research. Not only room acoustics in closed spaces but past sonospheres thereby become accessible again. Different from textual literary records which do not allow for an experimental reconstruction of the author's original mind-setting, archeoacoustics places the "observer" in a co-original listening situation.

Facing the Amalfi coast south of Naples, the Li Galli islands (Gallo Lungo, Castelluccio and La Rotonda) have been known since antiquity as home of the Sirens. The media-archaeological question is this: It there something like a physically given setting, a grounding in the "real" of signal processing, that kept cultural memory insisting on that place?

According to Homer, Ulysses could hear the Siren song just because a divine power (a *daimon*) calmed down the sea around the Siren islands to get a perfect signal-to-noise ratio. If there were waves, they were silent like ultra-sonic radio frequencies to not resonate in human ears unless a radio receiver demodulates them down to low-frequency loudspeaker emission.

While being addressed by the Sirens' singing, Ulysses is not only in a boat *on* the sea but *in* the waves. The human ear perceives kinetic impulses (the

acoustic waves) rather affectively than consciously.[1] The optical regime is about immediate impressions while keeping physical distance; sound in a different haptic way directely attacks the body. With the absence of ear-lids, there is almost no escape to the acoustic attack once the visitor enters a sonosphere. This sonic imprisonment takes place on two levels: the manifest level when we listen to an acoustic composition, and the latent level when even what we see as optical event turns out to be a secondary function of sonic eventality - such as the ultrasonic or the fully-electronic image.

A media-archaeological research expedition by members of Humboldt University Berlin (assisted by the Center for Media Arts and Technology Karlsruhe) in early April 2004 experimented with sound propagation at the supposed original place of the Sirens' singing, the Galli Islands. Both synthetic signals (sine tones, white noise) and natural voices (vocalizations of Monk seals, voices of two female singers) were broadcasted *via* loudspeaker. The signals were then recorded along a supposed line along which Ulysses might have approached the Siren Island. The acoustic analysis of the recordings revealed an acoustic effect which tentatively explains the nature of the Sirens myth: The specific position of the islands (two rock formations opposed to a large curved island) results in a deformation of emitted vocal signals by amplification and changes in the timbre.

Fig.: "Spectrogramm of a vocal sung by two female sopranos exploring the Sirens' songs in the midst of the Li Galli islands"[2]

But to what degree is this acoustic latency (as revealed by media-archaeological research) evidence for a conscious use of such reverberations in ancient times?[3] The correlation between this acoustic latency as revealed by cold measuring evidence with a conscious use of such reverberations in ancient times induced by the semantically heated transmission of the Siren songs in the vocal alphabet strikes the central question of cultural tradition when conceived in techno-mathematical terms of communication theory. Any such deduction of sonic significance from archeoacoustics oscillates between signal or noise.[4] What remains undecidable is the degree to which a conscious use of resonance in ancient times has been applied to such acoustic settings. But the key hypothesis based on such findings is that the data won by acoustic measurement correlate with essential assumptions in ancient Greek musical theory and enharmonics. The clue to the location of the Siren songs might

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1 See Victor Zuckerkandl, Sound and Symbol. Music and the External World, Princeton (Princeton UP) 1956, 204f

2 From: Karl-Heinz Frommolt / Martin Carlé, Der Gesang der Sirenen. Homers Dichtung und akustische Realität, in: Hugo Fastl / Markus Fruhmann (ed.), Fortschritte der Akustik. Plenarvorträge und Fachbeiträge der 31. Deutschen Jahrestagung für Akustik DAGA 2005 in München, Berlin (DEGA), vol II, 797

3 See C. Scarre / G. Lawson (eds), Archaeoacustics, 2006

4 The borderline between culturally intended sound and implicit acoustic settings separates "prehistoric" sonic articulation from its cultural history not only in a temporal but in a structual sense. See Chris Scarre / Graeme Lawson (eds.), Archaeoacustics, Cambridge et al. (McDonald Institute for Archaeological Research) 2006

therefore be that the sonosphere specifically struck the Greek ear which was tuned by its culture of musical listening.

(Hyper-)Sonic beams

The poetic subject of the Siren songs is rooted in writing, a kind of epic phenotype of the cultural-technological genotype of the alphabet.[5] Acoustic data can be symbolically registered only in its specification as *vocal* alphabet. But only within the media epistemic condition of the epoque of technical sound recording the media archaeological investigation of the Siren motive arose in non-philological ways.

In the age of acoustic media, though, sonic hallucinations such as the Siren singing is not a function of phonetic writing any more but of technical signals. That is why the Siren voices Ernle Bradford claimed to have heard at the Sirenuse islands appeared "soul-less", "somewhat im-material"[6]. It requires a special device (method) to decode these acoustic memory grooves: the media-archaeological gramophone, i. e., an archaeology of sound.[7] Synthesis of the voice deceive the human ear. Brain wave simulators, just like MP3 audio file compression, are built on both psycho- and media-acoustic facts. An ultrasound packet, whatever it contains, is only heard in the head of the target person, where the skull bones function as a resonator which changes the hight frequency waves back into audible sound, that is: demodulation, just like with radio waves.[8]

Phonographic sirenism

The human voice became media theatre with the arrival of the Edison phonograph. With an analogous human / machine performance in the New York Carnegie Hall, the Edison Company in 1916 convinced the (literally) *audience* (not sight-focused, like in traditional theatre) of the sonic fidelity of phonographic recording: "Alone on the vast stage there stood a mahagony phonograph <...>. In the midst of the hushed silence a white-gloved man emerged from the mysterious region behind the draperies, solemnly placed a record in the gaping mouth of the machine, wound it up and vanished. Then Mme. Rappold stepped forward, and leaning one arm affectionately on the phonograph began to sing an air from 'Tosca.' The phonograph also began to sing "Vissi d' Arte, Vissi d'Amore" at the top of its mechanical lungs, with exactly the same accent and intonation, even stopping to take a breath in unison with the prima donna. Occasionally the singer would stop and the phonograph carried on the air alone. When the mechanical voice ended Mme.

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[5] Barry Powell, Homer and the Origin of Writing, Cambridge 1991

[6] Ernle Bradford, Ulysses Found, London (Hodder and Stoughton) 1963, 156

[7] "Versuchen wir eine akustische Archäologie." Friedrich Kittler, Das Alphabet der Griechen. Zur Archäologie der Schrift, in: Knut Ebeling / Stefan Altekamp (eds.), Die Aktualität des Archäologischen in Wissenschaft, Medien und Künsten, Frankfurt/M. (Fischer) 2004, 252-260 (260)

[8] Olaf Arndt, Wer nicht hören will muss fühlen (Voices of the Mind III), in: Babel No 4 (May 2004), 32-41 (38), referring to the *Dictionary of Non Lethal Weapons* edited by John B. Alexander

Rappold sang. The fascination for the audience lay in guessing whether Mme. Rappold or the phonograph was at work, or whether they were singing together"[9]; a similar confrontation between performance with human voice and replay from the apparatushas been commented in the *Boston Journal* the same year: "It was actually impossible to distinguish the singer‘s living voice from its re-creation in the instrument."[10] The Homeric Siren motive returns as the sonic variance of the Turing Test in coded communication[11], as much as *His master´s voice* has been experienced by the dog Nipper as the phantasmatic illusion of being present, induced by technical *recording*.[12]

This extends to the time axis as well. Communication between the human sensory apparatus and the signal record can short circuit historical distance, since phonographic culture has been apparently been accommodated to the disembodied voice. But a cognitive-affective dissonance remains. While the historically trained mind knows that the phonographic mediated voice is actually absent, acoustically it is very much "re-presenced" (Vivian Sobchack).

Artificial voices, uncanny

Exactly when the Sirens appear to perform the most beautiful in human articulation - the musical voice -, they remind of the uncanny in human experience of electro-acoustic voices: a reminder that the apparently most intimate voice might be machinic in itself, and that the human hearing apparatus is not able to separate human from inhuman voices.

Maurice Blanchot has desribed the Siren sound as paradigmatic for what can be re-defined as media-cultural state of uncertainty. In the age of voice synthesis, humans can not be sure any more whether the sounds they are confronted with are organic or technologically produced.

Located between the extreme borders of "signal" on the one hand (Homer lets them sing in Greek language) and "noise" on the other, the sono-poetic trope of the sound of Sirens offers itself to theoretization in terms of communication theory. Only in written literature the Siren sound became defined as lyrical. The media-archaeological ear, on the contrary, recognizes sine waves.

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[9] Article "Edison Snares Soul of Music", in: New York Tribune from 29th April, 1916, 3, quoted here after: Peter Wicke, Das Sonische in der Musik, in: Das Sonische. Sounds zwischen Akustik und Ästhetik, in: PopScriptum 10 (2008), *online* http://www2.hu-berlin.de/fpm/popscrip/themen/pst10/index.htm

[10] Emely A. Thompson, Machines, Music, and the Quest for Fidelity. Marketing the Edison Phonograph in America 1877-1925, in: The Musical Quartely Bd. 79 (1995), 132

[11] Alan Turing, Computing Machinery and Intelligence, in: Mind vol 59 (1950), 433-460

[12] See Mladen Dolar, The Voice and Nothing More, xxx