THE INVISIBLE SOUND: A STUDY IN THE TRAJECTORIES OF SOUND PRACTICE IN INDIAN FILMS BY ONLINE ARCHIVAL RESEARCH

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1.   Introduction

In recent years, digital media technologies have had a significant impact on cinema particularly in the production and reproduction formats of cinematic sound. Techniques and practices such as 'sync' recording and multichannel sound design alter the typical organization of a film sound-track. At reception-end, these phenomena initiate reconfiguration of audience engagement, thereby contrasting with earlier cinema viewing in the mono-aural and stereophonic settings to shift from the earlier construct of a linear 'soundtrack' toward a complex multi-layered digital sound environment. For example, in recent Indian films, the previous practices of the mono-aural and stereophonic mixing of dubbing, stock-sound effects, and studio Foley are gradually being replaced by 'sync' sound effects and an elaborate design of location-specific ambience alongside actors' 'live recorded' performance (Chattopadhyay, 2013). These authentic sound elements incorporate a wider proliferation and diffusion of sonic artifacts into cinematic narrative, adding depth, texture, and perspective and instigating a creative and inventive use of sound. I argue that, in this creative realm of digital cinema, reordering of the multiple layers of sound aims to evoke the audience's spatial association and cognition of cinematic location similar to the working of the sound-based arts. These practices restructure Michel Chion's notion of cinematic sound as an audiovisual contract of merely vococentric order (Chion, 1994), which was applicable to the earlier practices, i.e., mono-aural and stereophonic sound in Indian cinema. Therefore, these different trajectories of sound practice require thorough investigation to articulate the shifts with a historical approach based on in-depth archival research, which is the main concern of this project.

2.   Project description

In his new book *Film, a Sound Art* (2009), film sound theorist Michel Chion argues that watching movies is more than just a visual exercise: it enacts a process of audio-viewing; the audiovisual makes use of a wealth of tropes, devices, techniques, and effects that convert multiple sensations into image and sound, therefore rendering, instead of reproducing, the world through cinema. He develops these convergence-hypotheses that recast the history of cinema as the evolution of a truly audiovisual language. If we employ these hypotheses on the Indian mainstream cinema conditions as case studies, we will discover that Indian sound-films since *Alam Ara* (Irani, 1931) seldom pertain to the 'audiovisual' language as perceived by Chion. Rather these earlier films have undermined the aesthetic dissemination of sound by an overwhelming usage of song and dance sequences where creative applications of sounds have sparsely been used. However, the advent of digital technologies alters the way Indian cinema has been constructed so far. With the introduction of digital technology in film-sound newer audio aesthetics appeared. Easily available and easy-to-handle recording devices and design tools have brought in fresh angles and varied forms in film-sound practice, such as location 'sync' recording and surround sound, which transform production and reception of recent Indian films if we conduct an archival study through these trajectories with an historical approach. Following this, we can observe that, the contemporary construct of mainstream cinematic sound is different from the pre-nineties films, with multiple layers of sound enabling the audience to connect his/her sonic experience by the way it conveys information and emotive qualities related to lived-experience of the phenomenal world (Bordwell, 2009), similar to the working of sound-based artworks such as soundscape composition (Schafer, 1977; Drever, 2002), emphasizing the creative use of sound in cinema.

My Ph.D. project intends to comprehend these historical trajectories in the practice of sound in Indian cinema. The intention of the project has been to develop theoretical models that articulate emergent aesthetics in cinematic sound formulated by different historical phases of sound practice, such as direct optical recording, magnetic studio recording and stereophonic effects, locational 'sync' recording, surround sound, and other spatial audio effects, arguing that

throughout the historical development of cinematic sound these practices have gradually re-configured spatial, temporal, and cognitive audience engagement in an interactive context unlike earlier cinema of mono or stereophonic settings. In the project, an outline is provided for the observation and analysis of the different trajectories of sound practice in Indian cinema, arguing that the audience engagement with the moving image is increasingly instigated by spatial reordering of sound instead of maintaining a merely vococentric audiovisual contract. In the analysis, the focus has been on the strategy of using the location-specific environmental sounds or ambience assuming that in the digital realm of cinema they provide for sonic artifacts in the cinematic narrative having a tendency to develop a 'post-cinematic' soundscape, which is principally crafted through digital techniques and practices like 'sync' recording and multi-track surround sound design that emphasizes elaborately creative and inventive use of sound in cinema via the intricate spatialization of these sound layers. Here, the term 'Soundscape' is referring to R. Murray Schafer's notion relating to the mediation and aesthetic dissemination of environmental sound (Schafer, 1977) as aptly put by John Drever in his paper 'Soundscape composition: the convergence of ethnography and acousmatic music' describing soundscape as a juxtaposition of ethnography and artistic practice incorporating environmental sound as basic ingredients (Drever, 2002). By accessing, retrieving, studying and analyzing a number of sound-films from different technological phases of direct recording, magnetic recording, and present-day digital recording, the article proposes three corresponding models that are developed on the basis of observations. These models take their point of departure in specific phases of technological transitions and intend to highlight characteristics defining the sound aesthetics that emerge from these different phases of sound practice. The argument developed following the observations is that, through different phases of cinematic sound practice, the relationship between audio and visual has shifted from a merely vococentric contract to a creative realm of sound, in which audience engagement with the moving image is increasingly instigated by spatial reordering of environmental sound or ambience that essentially reconfigure the linear construct of a film 'soundtrack' toward a spatially-evocative surround sound environment, which is crafted by artistic application of digital technologies on cinematic sound such as 'sync' recording and multi-track sound design highlighting a cognitive theoretical premise in cinematic sound studies.

3.   Methodology and approach

The methodology of the project has been to conduct an intensive archival research and analysis of a number of film soundtracks from the optical era, the electro-magnetic era and the contemporary digital era retrieved from the film archives. The approach has been to experience, examine, and analyze a number of these representative soundtracks accessed and retrieved from the archival film materials representing different technological phases, such as direct optical recording and mono-aural mixing, magnetic recording and stereophonic effects, digital 'sync' recording, surround sound and other digital audio effects by an in-depth and intensive archival research and by engaging with these materials as significant historical sound/audiovisual contents for analysis. For the empirical phase of the research, a substantial amount of the archival materials are examined and an extensive fieldwork interviewing film personnel such as sound designers, location recordists, production mixers, and sound editors has been taken up. This part of the project is done in collaboration with a number of film archives and institutions devoted to preserving Indian cinema.

4.   Problem

The problem faced during the initial phase of the archival research is of accessing physical contents and dealing with the question of openness in relation to the institutionalized archives in India. The main issue has been red tape in bureaucracy and intervention/mediation in the mode of access. Indian film and audiovisual archives, mostly the institutional ones are still relying on older forms of preservation and storage rather than the free mobility of source materials (Chattopadhyay, 2009) available to new technologies. There are discourses on copyright and from a point of view of regulatory ethics data should carry the name of the source and data cannot be copied/curated/reused without the permission of the author. In the Indian context

this regulatory ethic looms large and archives act as mere repositories of the recordings without a proper plan for access and use (Chaudhuri and Seeger, 2004).

5.   Solution

Instead of being sought from physical archives, the archival materials are accessed and retrieved primarily from online resources addressing the question of openness and usage of new technologies. A large amount of archival material has also been sought through Internet repositories via video hosting sites such as YouTube, Dailymotion, and Veoh. The user-generated link-sharing websites that catalogue links to TV shows, films, and music videos, such as Alluc. org, have also been explored.

The openness of these new media platforms initiates accommodating older media in a digitized form and spreads it within the public domain of the users of these new technologies. New media is not simply a linear extension of the old, rather a different discourse suggesting an apparently democratic pattern by means of open source architecture of data. From the point of view of archiving, old and new media both offer preservation of and access to information resources to larger audiences; the difference is that new media can expand the range of resources to new dimensions; they can provide open access to the resources, larger mobility of archival content, reinterpretation of older forms, and interactive links between users. These capacities of new media enable a decentralized repository like an invisible but openly available archive allowing users to choose what information they want and in what form in a transparent openness. In the light of new technologies, seemingly forgotten moments in the history of film sound can be rediscovered and used for research.

6.   Findings

Web-based streaming services such as YouTube, Dailymotion, and Veoh host a stupendous amount of Indian films, from as early as silent era to the present day. Most of these repositories presently enjoy a rapid growth in open and free access and user interaction as shown below in Figures 1–3:
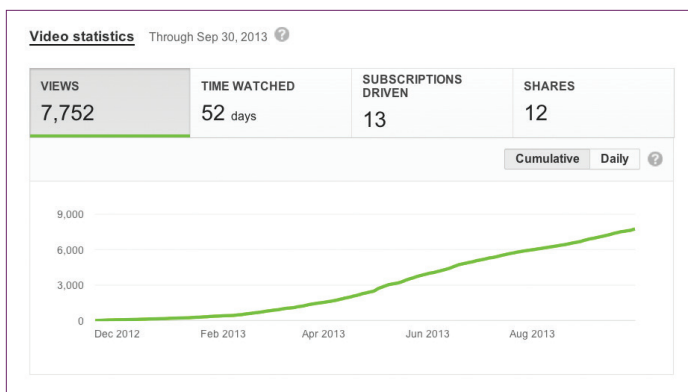

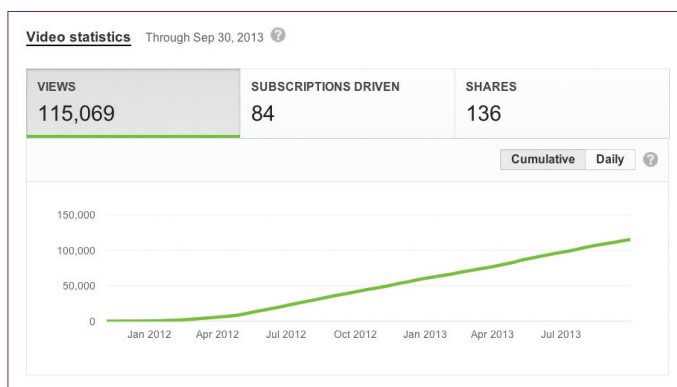Figure 1. Statistics of online viewing of the film 'The Philosopher's Stone' (Satyajit Ray, 1958), *courtesy YouTube*.

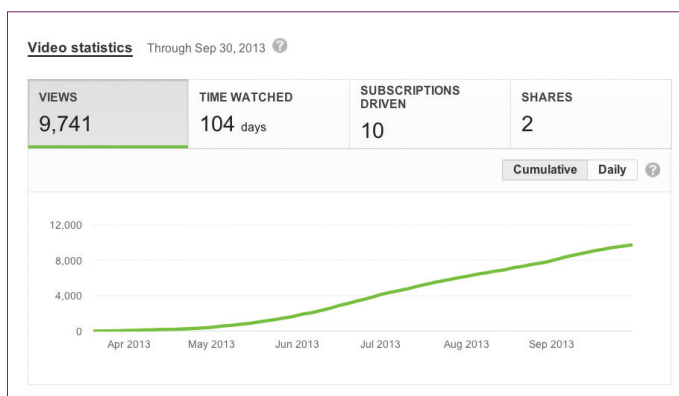Figure 2. Statistics of online viewing of the film 'The Hero' (Satyajit Ray, 1966), *courtesy YouTube*.

Figure 3. Statistics of online viewing of the film 'The Enemy of the People' (Satyajit Ray, 1989), *courtesy YouTube*.

7.   Conclusions

Watching a film and listening to its soundtrack from web streaming is now a usual practice in the afterglow of the digital era. The potential pleasure in listening to the open source online archives by headphone is achieved by immersion in sound. Sound scholars like Michael Bull have already discussed about the ramifications of the rampant usage of headphones in the so-called 'iPod culture', while more recent works in this area such as by Anahid Kassabian have explored the phenomenon of 'distributed subjectivity' by 'ubiquitous listening' in smaller digital platforms. What is at stake here is the essential miniaturization of media devices and their increasing strength in distributing and handling the big data of online archives. When we come to sound and listening in that context, we face the dichotomy of listening practices of more complex digital multi-track and layered sound mixes of feature film sounds in a relatively limiting dynamic range of online streaming media. The central question here is how do sound producers adapt their creativity in relation to the open and volatile platforms of web-based film and audiovisual archives (such as the ones I am exploring), and how do potential audiences/media users access these domains. I have found during the current phase of my archival research that the methodology to open and free access to archival contents available to the media user on the web lead to deeper 'personalization' of sound. Here I consider 'personalization' as a cognitive process involving selfhood, subjective contemplation, and presence within an auditory situation of essentially personal nature. I would like to call this 'Post-cinematic Sound,' meaning that the intended purpose of an increasingly artistic, innovative, and spatially layered and densely constructed digital sound when experienced in relatively lower dynamic ranges of web stream-

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ing via headphones, leads to remediation toward the personal and the subjective ramification of sound. In the contemporary world of open source access in the pervasive media archives, digital sounds and our relationship to listening demand to be understood in a new discourse based on the historical developments, but leading toward the contemporary post-digital realm of freer access and openness. This project contributes to that emerging discourse.

8.   References

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