

KEYWORDS

syncretism; theater; film; music; technology

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SUMMARY

SYNCRETISM IN MUSIC OF THEATER AND FILM TECHNOLOGICAL DEVELOPMENT

THESIS

Leader: Prof.Dr. Marian Popescu

Co-tutelage: Prof. Dr. Pavel Pușcaș

Kiraly-Nagy O. Octavian Mircea

"Babeș-Bolyai" University of Cluj-Napoca
Faculty of Theater and Television

PhD: Theater

The PhD Thesis "SYNCRETISM IN THE THEATER AND FILM - TECHNOLOGICAL DEVELOPMENT" comprises essentially the significant and relevant phenomena of the second half of the 20th century (with references in the 21st century), in the field of theater, film and multimedia music. The thesis addresses collaterally and contextually the issue of integrated music to performance or stage performances. It is a work that has both scientific openings (by exposing and analyzing the ideas underpinning professional audio band processing) but also creative (by proposing innovative solutions) as well as pedagogical perspectives.

The paper is organized in four parts and seven chapters starting from the premises necessary for the approach.

Part I comprising 17 chapters:

PLACE FOR THE VALIDITY AND NEEDS OF THE THEME

Maurice Chion, the initiator of the term Synchresis, formed by the combination of two terms: "synchronicity" and "synthesis," referring to the way visual and auditory elements can be perceived as a single sign, launches not just a new concept in the 20th century musicology, but also the preponderant theme of this century: the blending of innovative elements and concepts that characterize the revolution of the artistic field.

LIMITS AND EXTENSION OF THE WORK

The space to describe the new technologies as well as their contribution to a new aesthetic and pragmatic opening is distinguished by the theoretical, but especially practical, contemporary tools of the modern composer in the music field, especially in the theatrical or the sound movie.

The work also proposes contemporary examples of innovation and collaboration with various artists in many fields, by exposing my 40-year-old multimedia work experience.

METHODOLOGICAL APPROACHES

Organizing research in the current artistic field involves the identification of essential elements in the development of the multidisciplinary artistic concepts of the present century, as well as the support provided by technological development, which now provides the engine for new techniques of approaching the creative act.

The comparative analysis advocates a comprehensive picture of the phenomenon, discussing various aspects and modalities adapted to new interartistic forms. We developed in these chapters the compositional techniques specific to the theatrical act, but also the concept of modern or multimedia experimental film.

From a time-historical point of view, the present paper aims to bring back the contribution of new elements, innovative concepts or creative inventions conquered at the time. The knowledge gained at that time has been perpetuated and disseminated through international relations through congresses, worldwide dissemination with the help of the internet being a decisive factor in the rapid development of all the new technologies and concepts that underlie the modern creation of theater and film music.

The structural mode of research was the basis for the synthesis of certain aesthetic concepts and tendencies influenced by the social political upheavals, but also by the impetuous technological development.

Some forms of ideological or dogmatic development helped us to discern the values and innovations in the field by analyzing the structure, morphology and semantic texture of the musical works devoted to the interpretative act. The contribution of new sciences developed during this period (acoustics, psychoacoustics, mathematical analysis, or various contemporary philosophical-aesthetic concepts) can be analyzed only through their decomposition into the essential elements, which predispose to a great diversity of ways of inspiration in the contemporary creative act .

THE PLACE OF MUSIC IN TEATRAL INTERPRETATION

Composer Arnold Schoenberg, visionary of new musical forms, concerned with integrating music into modern theatrical forms, gives a new way of expression in performing arts. Opus18, Die Gluckliche Hand, written in 1913, describes in the libretto of the work

theatrical indications as: the intensification of the wind, the intensification of the synchronized light in music.

Serial music benefiting from new creative concepts opens up new opportunities for expression that bring it closer to the theatrical act. The new technique, invented by the composer himself by the unpredictability of the notes until the end of the sequence of the twelve notes contained in the chromatic range, the polyphonization with the same inverted or recurrent material, were also taken over as modern forms of expression in the modern theater. The composition is perceived as a form of organization of musical or non-musical elements that can be easily resembled with events, scenes, soul-specific theatrical acts.

The use of props in musical performance brings us closer to the theater (John Cage, *Water Music*), proposing as a musical-expressive stage a water basin, a radio and an alarm clock (not only as scenography but also with musical sound functions). Electronic instruments with different sensors and theatrical appearance similar to the props complete this painting of modern forms of expression of tribute to the theater.

THE PLACE OF MUSIC IN THE FILM

Music has the ability to influence emotions. Starting from this postulate, in the film the possibility of overlapping musical structures over the visual ones creates a cumulative emotional impact superior to that in the theater through the increased number of associations that can be identified per unit of time. Researchers like Robin Hoffmann develop a new classification from the point of view of the influence of sound on the directorial image or intentions. Cohen, on the other hand, approaches the subject from the point of view of image-sound congruence, the initiative starting from the composer's perspective. Both points stand, but the subject of our research is not only about issues tangential to the place and role of music in the film.

Unlike theater, the film develops a greater appetite for musical descriptiveness. From the earliest soundless productions that were accompanied by a live instrument (usually a pianist or organist), the decryption element was as important as synchronization. In the film music *A Neglected Art*, Roy M. Prendergast identifies two valences of film music: the first refers to the "geographic color" that music can suggest (the sound of the box will always suggest Scotland as the venue of the action, pentatonic music will refer to China) and the second is the "stylistic parody", the composer's writing in a particular language. Thus, the musical score parodies the styles of the great composers (Haendel, Mozart, Chopin, etc.) to suggest a certain period or a certain musical context. Both techniques are used less and less, due to the new trends in globalization of music and the distinctive footprint that each contemporary composer imposes.

Another approach to the role of film music is that in which it expresses itself in congruence or non-congruence with the script, the action and the image of the film. Here we are talking, unlike narrative music, about music that performs an emotional role. In this sense, Marilyn Boltz uses terms like "foreshadowing" for music that has a deliberate, role-playing role, and a scene that expresses a semiotic juxtaposition over the image, potentiates the emotional element, or "in front ". Usually, the first category is highlighted in contrast to what follows (eg *Star Wars* theme 1 enunciative, warlike character, and elective theme 2, with a more pronounced narrative character). This compositional method, where there are always two contrasting movements, is characteristic of Hollywood films. Perhaps the prelude and the reminiscence of J.S. Bach formed the basis of many of the composing ideas of film music through their so specific footprint. The renunciation of the old forms of composition has two aspects: first of all to elude any form of musical continuity including in theatrical elements (text, dance, light,

pantomime), and in the second, the musical intentions can be generated by creator, whether he's a musician or a director.

Thus the idea of the experiment created from the existence of non-interventionality, of the arbitrariness in the musical discourse, is becoming more and more important in the contemporary theatrical act. From here we can deduce that musicians have created bridges for theatrical creation and not the other way round. In the film, music is more eloquently expressed through narrative comments, sometimes in agreement with the image, sometimes disagreeing with it, without it being perceived as part of another scenario. The film becomes more permissive in terms of the role of the musical suggestions of the composer. The multitude of musical forms and instrumental-sound methods used in film music, ranging from classical to contemporary forms, define diversity and innovation in the performative act.

COMMON PARAMETERS - TEMPORARY SYNTAX

The modern concept of the arts in our times tends to amplify and potentiate the metaphor by synthesizing all the valences that until now formed the exclusive field of art. It is now observed that these parameters are mixed in the creature of creation to obtain the essence of the metaphor, the sign maximized. Thus, painting and sculpture became dynamic, the dance embraces the image, but also the anecdote, the theater uses more and more multimedial elements, the film becomes interactive, the music is served by scenography and improvisation.

If we look at contemporary art from this perspective, the common primary parameters of all artistic performances are articulated by temporal syntax. The element of time present in our consciousness becomes a catalyst and also a distributor of relations between the components that make up the artistic act today.

Thus, through this perspective in contemporary creation, everything becomes one and one expands in all expressive aspects. Thus, color can refer to rhythm, shape to durations, tempo movement as idiomatic elements in temporal hypotheses, including film and electronic games, and the notion of time governs in this way all forms of manifestation. The final content is one-dimensional, time-based, temporal.

CONTEMPORARY EXTENSIONS

Michel Chion, in his *Three Listening Modes*, delimits three ways of perceiving sound objects that make up the musical creation and can be applied to all artistic models:

- the typological way characterized by the classification of sounds as objects
- the internal morphological mode that involves categorizing the categories in the description of sound objects with a single source object.
- the external morphological mode that catalogs sounds made up of several elements belonging to the same sources.

This classification of acoustic elements taken from Pierre Schaeffer's *Traité des Éléments musicaux* treats the vocabulary of all musical-acoustic elements present in nature or synthesized by specific acoustic or electronic devices.

The temporal component - the rhythm - is the basis of the musical structure. It can be perceived as a representation of the three basic notions: past, present and future. It is well known to reformulate certain musical sequences in the discourse of the present (or present), or

even the future, with the help of the modern rhythmic patterns, the poly-rhythmic enrichment (the percussion ensemble) and the diversification of the durations.

The space-sounding component is perceived both as a height and as a location in space. Binaural audition lies at the heart of the elements developed in the study of psychoacoustics, and the composers of the 20th century have benefited from them. The timbral component - often a particular music accompanies a distinct orchestration (eg bridal marriage that is assimilated to church orgies) - has the most important role in forming a complex image in human consciousness through the links of memory, of new experiences unrecognized so far.

The spoken text associated with music has sometimes superior valences in the detection of the artistic sense and of a better receptivity. Human perception has the ability to distinguish in a musical work the constitutive elements such as a tool or a group of instruments. This fact can also be speculated by the creator in his goal of giving synchronicity to sensory connections. The component of the sound intensity - intrinsically linked to the spatial component - helps to delimit the plans of the sound image (near, distant), but not just: it forms in the human consciousness various dynamic representations by alternating the various intensities of the musical discourse. Thus, a reduced dynamics that follows or is preceded by an acoustic storm with the same melodic-rhythmic patterns creates, in addition to the surprise sensation, a miniature reality of the one previously represented, sometimes with comic effects.

The harmonic component of sounds is defined by the historical aspect of the created music, but also by the character of the music. Thus, a pre-classical passage will always foreground an image placed in the context of that age. Just as each musical age corresponds to a distinct orchestration in which instruments are richer or poorer in harmony.

THE HISTORY OF SONGS OF THEATER AND FILM IN SEC. XX ACCORDING TO THE TECHNOLOGICAL CLAIMS OF THE FIELD

Although the theater and film music is considered by some composers to be inferior to the concert destination, the director-songwriter collaborations that made notable works are famous. It is enough to remind Peter Greenaway and Michale Nyman (*The Cook, The Thief, His Wife & Her Lover*), through the minimalist-baroque expression of music, Daren Aronofsky and Clint Mansell (*Requiem for a Dream*), Godfrey Reggio and Philip Glass (*Koyaanisquatsi*) or Christopher Nolan and Hans Zimmer (*Interstellar*).

AESTIC SPECIFY OF THEATRE MUSIC

Defined in the dictionary as a set of principles relating to the appreciation of beauty, the aesthetics of the music in the theater is closely related to that of the aesthetics of the work to which it belongs. All this seems to be related to the moral and ethical function of the audience. We can define at most socio-professional groups that correspond to the same aesthetic level, but we can not generalize. "De gustibus non disputandum" says an old proverb. However, localized in an era, musical aesthetics in performing arts are dictated by principles, even if she manages to surprise the audience sometimes, pleasantly or unpleasantly. According to Dewitt H. Parker, music is characterized as a free expression, as a personal expression of both the artist who wrote it and the listener. It is about the vision and the ethical values of society. David Roesner, the theoretician of theatrical forms called

"Composed Theater", gives the musical strategy of a work the role of organizing the theatrical artistic object to which he submits.

However, musical themes are subject to dictates of style, musicality or form, the methods of inspiration being diverse; the reading of the play in the context proposed by the director, scenographic imagery, pictorial imagery, conflictual nature or polyphonic alternation of the feelings that only music can express. John Cage expresses this concept in the words: "There is no empty space or no time.

There will always be something to be seen and heard. " The improvisation process, characteristic of the 20th century in performing arts, introduces new theatrical terms in music: temporary fragmentation, synthesis in assembly, expressive combinations of images along with dance and music.

The improvised interpretative way of musicians present in some theatrical creations rewrites the song every time. Through imagination and performative performance, musicians present in the stage often add value to the theatrical act.

Music, through the semiotics of the language used, helps the director's polyphonic intention to create overlapping, sometimes conflicting, sometimes edifying plans that support acting. Often, it is also a composite way to polyphonize throughout the scenes to complement the aesthetic aesthetics desired by the director. Often, directors feel the need for a simple "acoustic pedal" that accompanies the text to give the unnatural space sensation, but necessary for their intention.

The musical forms created in this sense, although monotonous in singular interpretation, give the theatrical scenes an architectural base necessary for the directorial intention. The unlimited musical sound space (as opposed to the acoustic of a localization by specific noises) amplifies the emotion and the mode of reception. Repetitive musical idioms taken from the Indian raga launch the word into space. The monotonous repetitive aspect of a simple note with small variations of fluctuation puts the entire theatrical scene in a new light with improved aesthetic valences.

Other times, instrumental passages created by the repeatability of musical motifs in rapid tempo create the effect of color changes of light, like a kaleidoscope, often used by theater directors.

The rhythm, an essential component of music, provides the interpretative act with the psychological aspects of the movement itself. The repeatability of heartbeats as a human paternity is often used musically in the theatrical performance. The drain of time, also measured by the rhythm, confers the theatrical space pulse of life. The dynamic power of scenes created with the help of the musical rhythm acquires new interpretative valences that by specificity distinguish a scene from the one that follows, thus delimiting the sensations stated by the creator-director in this case.

The musical rhythm used in this context develops metabolic activities in the human body, creates breathing accents, positively affects the nervous or circulatory systems, opens the way of coordination between the performer and the listener. The effect produced by the drum machine in the theatrical act opens the directorial path to specific receptive driving activities in the audience's consciousness.

AESTHETICS OF FILM MUSIC

Music, through the color-timbered variety, easily places the action of the film in time, space, social context. Thus, a composite music for gypsies will always predict a film sequence in Scotland, and one that has an Oriental thematic support will suggest a geographic area of

action in the Orient. The musical language characterized by musical modes and ladders easily places the place of action in well-defined geographical areas.

The pentatonic music, characteristic of Chinese culture, differs from the blues scale, specific to the North American space. This musical personalization often emphasizes through the parodic aspects the character of a character or the specificity of a scene in the film without it being necessarily anchored in the totally specific musical nature of the film's theme. The color pencil thus created gives the filmmaker the opportunity to make disagreements or thematic deviations by simply using the music record changer. In this case, the composer's ability to integrate these musical quotations into the general soundtrack register, the music appears in this case as an unfortunate collage of musical styles, specific to the bad films.

SEMIOTICS AND SEMANTICS IN THEATERS AND FILM MUSIC

From the semantic point of view of the soundtrack, the 20th century theater uses another aesthetic way of using the symbols. The theater of the absurd, for example, leads the concept of aesthetic logic to that essentialization in which every sound or part of a sound has its own meaning unconnected with the context.

Music, in its entirety, is constituted by the same rules, whether it is used in the same genre or in different works as an approach. In this way, the musical syntax in theater / film music is based on a wide diversity that, paradoxically, is perceived unitarily in the theatrical forms. We often see side by side, each with different stylistic affiliation, or orchestral modes in the different compositional epochs.

A theater soundtrack can integrate with major logical problems African-rhythmic parts placed in the vicinity or overlaid with a Gregorian chorus, rock rhythms with symphonic support, hip hop themes with Indian melodies.

From the semantic point of view, in theater / film music of the 20th century we can observe the existence of reference points with rhythmic or rhythmic-melodic accents around which the whole musical structure revolves. Laws are consistent with modern science, superior mathematics governs semantic expression in a system of great complexity, and often modern poetry or text leads to forms of musical expression with asymmetric textures. Importance of the Semiotic Signs and Significant Meanings for Artistic Perception from the Avant-garde Art is also the prestige of modern theater / film music.

Thus, the significance of geometric patterns (circle, triangle, square) can easily find correspondence in the musical suggestion by matching specific compositional elements (ex syncopation, harmonic, polyphonic methods). If they are duplicated by acoustic effects such as reverberation or echo, they will be more easily identified by the spectator. Besides, the director is not limited to expressing non-theatrical elements. Thus the theater becomes from the memorized and illuminated text an aesthetic multimedial form with credible valences in our day. The associations that music can suggest are of equal value to the text and movement in the performing arts.

THE PROCESS OF THE THEATER AND THE FILM MUSIC CREATION

The terms "composition, composer" (derived from the Latin term "compositio" - "put together") do not address exclusively the activity in the sound field, and they may have different connotations. Thus, in plastic the term addresses the relation between the elements, the diversity and the links between the constituent elements, in the architecture it addresses the proportions and the variety of the structural elements, and in the film / theater designates

the construction of the entire artistic complex that involves the stake in the stage, the work with the actor, lights, music.

The strategies and techniques used in musical creation are similar to directorial work, so in the process of musical creation, the documentation must not necessarily be in the specific artistic field, but it can be oriented towards multidisciplinary by studying the morphological-constitutive elements of alternative arts (literature, painting, sculpture).

There are countless examples in which composers have identified themselves with works in various artistic fields, just as the basis of a movie or a play may be a story or a real fact. The strategies and techniques that are approached are also common to both the musical creation and the movement, the spoken text, the light, or the scenographic construction in the theater. It is also known the influence of Pythagoras' concept of "sphere music" in many musical performances. Richard Wagner, through the Gesamtkunstwerk concept present in his works, anticipates modern contemporary forms of musical insertion in theater / film.

SYNTHESIS AND ARCHITECTURE OF THE THEATER AND THE FILM MUSIC

Modern art is increasingly delimiting the phenomenon of descriptivism. In the same sense, music, in close correlation with the phenomena of performing arts, adds new ways of expression. Perhaps over the centuries, the sounds of Messiaen's composer's sound clouds or the stochastic music of composer Stockhausen will be described as descriptive in relation to the new structures and manifestations, but today, compared to previous centuries, contemporary theater or film music is oriented more to rhetoric. The rhythms and repetitive sequences, clusters, static or dynamic pedals are more familiar, as well as the effervescence of poliritmia to the detriment of songs and themes reinterpreted and developed during the sound discourse.

The art of the twentieth century is responsible for the complexity of new theories, discoveries and hypotheses that set in motion new laws and modern applications of artistic creation. The art of the twentieth century has not only traversed many troubles and wars, but also has many artistic patterns and tendencies that have succeeded in an unprecedented rhythm. These imperatives have dug not only in the public consciousness but also in the creator's phenomena which in the collective subconscious acquires a specific complexity and diversity. If we only exemplify the appearance of countless religions that emerged in the twentieth century, it is enough to argue this hypothesis.

As a result of the theory outlined above, the music accompanying the performing arts acquires a new function: the narrative. Presented especially in the cartoon cartoon, electronic games, but also in parts of the theatrical act, it is characterized by a microsemantic of the actions that make up a certain creative state or attitude. Generally composed of suggestive noises, or instrumental sound effects (also called Mickey Mousing music), this music creates, along with the image or action, a non-verbal narrative path with a precise cognitive function. Of course, in these sequences music is not a diegetic character. She uses the peculiarity that sometimes she takes an abstract form of communication.

SONOR SOURCES

The human voice involves two processes: emission and modulation of the sound emitted. The cavity of the larynx containing the vocal cords is the emitting organ that produces the vocal sounds through the vibration of the strings. The oral cavity, by its

modeling conformation, along with the tongue, lips, teeth, and even bones of the head and neck modulate these frequencies, in analogy with the acoustic filters, giving each sound a distinct distinctive distinctive vocal-stamp.

A significant example of new vocal synthesis research as a tool is Haken's technological discovery, suggestively called "TWO HANDED VOICE". The software uses the Haken Continuum instrument created by Dr. Lippold Haken, a tool that provides three-dimensional control of real-time music parameters.

The human body as a tool

Since ancient times, in the process of fading, the artist has used the human body to express through rhythmic or even melodic-rhythmic bodily conditions. The Spanish flamenco with its evolved form, the step in jazz music, is a good example of the performance that can be achieved in the international melody by using the human body as a tool.

Digital instruments as a sound source in performing arts

The study of this research covers only the electronic part of the musical instruments that provide new possibilities of expression in the interpretative act.

From this point of view, we can say that the electronic instruments are divided into two categories: the first one is the one of the electronically augmented traditional instruments, and the second of the contemporary digital instruments or the electronic music installations, both being used as tools in the creative space of theater, media and film. interaction with the digital instrument.

The creator of the foley artist, in the twentieth century, dedicated to the film, has been present since the first mute movie, in which the pianist who accompanied the musical film had around the piano a panoply with noise-generating objects to emphasize the aspects comic action. The importance of noise has then become the genre itself by creating concrete music with its exponents: Pierre Schaeffer, Jaques Poulin, Olivier Messiaen, Pierre Boulez, Karlheinz Stockhausen, Edgar Varese, Iannis Xenakis, to name only the most important.

SOUND IN THEATER SPACES

Theatrical spaces or other rooms where theater performance takes place have distinct soundtracks. The factors that cause distortion in the acoustics of showrooms are reverberation and composition of the sound spectrum (the ratio of the intensities between the low, medium and high frequencies). Another determinant factor is the particularity of the artistic act. Thus, the soundtrack of a musichall will be different from a piece of Chekhov. Because in most situations music and noise in the sound track are amplified electronically to the actors' text, the importance should be given distinctly to the two forms of sound emission. Acoustic problems also occur in the case of the broadcasting of recorded music or electronically recorded sounds that are not adapted to different acoustic amplification spaces. That's why it is recommended to specially mastered the soundtrack adapted to the function it will have in the space (this can be done easily with an equalizer, a multiband compressor and an "Ozone" software limiter - the Izotope company).

PSYCHACTICS IN THEATER / FILM

Musical sound can be described as a bundle of acoustic vibrations that are at the same time harmonic, whose frequencies and intensities are ordered according to well-established rules in physical acoustics. However, the way sounds are perceived is the basis of

psychoacoustic studies. The resolution with which the auditory system can analyze the individual components of sound, the forms of its development in temporality as well as the musical characteristics of sounds such as melody, harmony, intonation, attunement, dynamics, interaction of different tones are also part of the study of this matter, as well as a often subjective correspondence of the physical laws of acoustics.

sets out a complex view of the relationship between music and theater or film.

The study of psychoacoustics gives value to the threshold of sound perception of the lowest level of 0 decibels, thus expressing the auditory experience of air particles that hit human ear pavilion under laboratory conditions (anechoic chamber). At the other extreme, the sound can reach the pain threshold at 140 decibels.

The second part of the paper discusses the technological aspects that support the theater / film composer. In principle, it includes the description of the DAW (Digital Audio Workstation)

The composer's bet on the use of technology in musical creation involves several demands. First of all, the composer wants an easy-to-access tool with multiple possibilities adaptable to each musical style specific to theater / film art. In the second, he seeks to get closer to the expressiveness of natural instruments. The most sophisticated computerized music system has so far not produced a true copy of the unlimited possibilities of expression available to an instrumental performer.

The modern composer of theater or film music currently has his own studio of musical production, the so-called "Project Studio", with which he puts into his compositional ideas. All this is done in sync with the theatrical image or project to which the musical work is dedicated. Until the emergence of computer and specialized music software, this studio requires a major investment in equipment (mixers, multipath recorders, effects processors) and of course a multitude of cables and connectors connecting all of these devices.

The composer is umbilical about the creator of the theatrical or film spectacle through the instant opportunity to present his work in progress on the Internet, a process that greatly improves the efficient way of production in an artistic project. The composer has at hand the possibility to change any of the musical parameters of the work in short time, following some suggestions dictated by the director. The composer has the ability to reprint the scores for each performer with the changes made.

The third part includes the presentation of eight papers already made by the author who has over 40 years experience in the field:

VIDEO FILM "BRÂNCUȘI";
THE FILM NEVER ENOUGH;
THE FILM "ABOUT WINS ONLY WELL";
"MERCY STREET" FILM;
THEATER "HAVE LOVED FLOWERS";
"HAMLET" THEATER;
THEATER "ORPHAN ZHAO";
CD-ROM "THEATER TOY", which discusses the technical, syntactic, stylistic aspects of music as well as aspects of musical semantics that allow the association of music with theatrical discourse.

The fourth part "Research on Cognitive and Productive Possibilities in the field of Electro-acoustic Music" presents aspects of some projects undertaken and realized by the author in his concrete work with the students of the Faculty of Theater at Babeş-Bolyai University in Cluj.

Objectives such as: the knowledge and deepening of the theoretical and practical notions, the art of sound objects as an application of Pierre Schaeffer / Maurice Chion, the establishment of a rich database for the making of musical sequences for theater and film and the finalization creatively in students' own projects.

The paper's documentation includes the most important books and studies on the field that are organized according to international standards.