

ELECTRO-ACOUSTIC MUSIC IN CZECH REPUBLIC

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The following study presents a shorted form of the selected chapters of a dissertation part dealing with the Czech electro-acoustic music (hereinafter referred to as EAM).¹ The study is in particular engaged in the information available or interpretable to foreign researchers only with difficulties.

Basic typology

For our purposes, EAM may be specified as a *music the sound material of which is generated, or at least in majority elaborated and mediated by an electronic medium*. It may be defined as a *music genre* (in Czech *druh*, in German *Gattung*) specific for its selection of material, partly by the methods of its elaboration and its functions. The majority of the contemporary music goes at least at a certain stage through editing in a sound recording room (cut, color adjustment, and reverberation). It is therefore necessary to distinguish more precisely than in the past *the core of EAM* and so-called *transition zones* between the electro-acoustic and other music types. *The core of EAM* consists in the production where the EA means form an integral part of so called *semantic gesture*², i. e. where the artifact's transition into the acoustic form would be absolutely impossible or would significantly change its character or sense. *The transition zones* may be defined from a technological or an aesthetic viewpoints. As far as the technological point of view is concerned, the most important aspect is the extent and function of EA means involvement in the syntactic-semantic design. From the aesthetic viewpoint, we can distinguish in the EAM so called *intensive transitions* from art to non-art, and so called *extensive transitions* where the dominant position of the aesthetic function reduces in favor of the use functions.³ The intensive transition of EAM includes numerous examples of *exercises* (fr. term of P. Schaeffer was *sofège* from it. *sofeggio*), *experiments*, as well as *banalities* and *kitsch*.⁴ The *extensive transition* covers strongly occupied field of the film, scenic, and ambient music. Popular music occupies both the aforementioned zones. Another important aspect of EAM is the transition from music to non-music. For that matter, it is useful to distinguish the author's and auditor's viewpoints.⁵ The creation within this transition has been developed particularly by Bruitists, J. Cage, concrete music (P. Schaeffer, P. Henry), environmental and ambient music (T. Murray Schafer) sound therapies (P. Hübner,

A. Tomatis) The general term used in the Czech Republic is *electro-acoustic music*. This term has been promoted by *Confederation International of Music Electro-acoustic (CIME)*, although we can also still meet – thanks to the tradition (Germany) or thanks to its useful brevity (U.S.A.) – the term *electronic music* (EM)⁶. From the axiological point of view, EAM is still currently included in so called *New Music* (formerly also *avant-garde, experimental music*). However, the internal EAM typology suggested by EA researcher F. R. Moore dividing EA creation into the “*traditionalist*” and “*revisionist*”⁷ one seems to be more adequate. This viewing enables that it is possible to work with the technically up-to-date material and studio media, for example at a syntactic level, in a conservative way or, on the contrary, with the determination to find solutions uniquely linked to the new options. We should at this point add a note to the Moore’s theory that the traditionalism and the revisionism are not a priori indexed as to their values. The traditionalist approach may be conscious “test” of a material capacity, of studio media as well as of traditional forms (in many cases there is for example exploitation of a hidden semantic potential of the concert form in its principle of contra-position or co-operation). On the other hand, traditionalism may also be an unintended effect of the overall orientation of the author. Nor the revisionism must necessarily be more valuable. It may be the expression of a serious speculation of rational or meditative nature, as well as an effect of the lust for fashionable success and of the superficial opposition. F. R. Moore apparently substitutes the modernistic term „innovating“ with a post-modern term: While the modernism absolutely accentuated anything innovating, the post-modernism perceives the new as a continuous re-evaluation of the tradition. In the Czech conditions where the large majority of the EA composers passed the classical education of composition, the aforementioned typology is taken for fundamental. There is also another typology generated by J. Cl. Risset distinguishing composers according to their primary orientation on the poetics with the ambition to “*leave the material talk*”, and on the poetics seeking to create a “*grammar*” valid or for a particular group of the author’s works or for his whole production or for a general value⁸. These grammar rules are usually regarded as more general and substituting the former effect of tonality.

As far as the internal itemization of EAM is concerned, we may use for a criterion of the typology 1. *the material source* (where the Czech musicology in accordance with the foreign sources distinguishes two elementary types – *concrete music* (P. Schaeffer, P. Henry...) and *electronic music* (H. Eimert, K. Stockhausen); 2. the criterion of *the mode of implementation*. About this criterion EAM may be divided to *Music for tape*, *Live electronic music*, *Computer music* and *Musique acousmatique*. Till the mid-1960’s the Czech environment used the term “*technical music*” (C. Kohoutek), or “*information*” or “*cybernetic*” music (V. Lébl, to the extent of the current EAM). These terms were apparently connected with the modernist accentuation.

Information Sources and Literature

The factual basis of this study consists in the *EA summary of so called artistic, autonomous work of the Czech authors* working both in our country and abroad since the appearance of first more important opuses (in 1961) till the end of 1997. The data (about 480 compositions) are elaborated into the operational form of a database.⁹ The subject has been concentrated due to its considerable extent on the Czech creation leaving apart the Slovak one, though its historical connection is apparent and the former synthetic works dealing with the domestic creation included it (see below). The data of the database have also been reduced as to the documentation of the works falling to so called transition zones.

The source material of the study consist in the original radio recordings of the Czech EAM or their authorized copies (deposited in the *Music Information Center*), and replays of the *Association for EAM* (since 1990) covering particularly at the beginning the retrospective reproduction of older, technically qualified recordings (from the work of M. Kabeláč., Z. Vostřák. etc.). Later works could be monitored continuously within the concerts of the *Association for EAM*, concerts of *Atelier 90* (since 1990), International Festival in Brno, in so called *Expositions of Experimental Music* (since 1990) – later *Expositions of New Music*, and the *Days of Contemporary Music* in Prague.¹⁰ The presentation of the authors from the region of Brno is the most frequently held in the *Great Brno Planetarium*. The aforementioned institutions have been presenting the students' works (*Janáček's Academy of Arts* in Brno, *Music Art's Academy* in Prague). The *Czech National Broadcasting* comments regularly upon the EAM production in the studios of the radio at Vltava station.¹¹

As to the sound sources, I have been continuously building the collection of brief audio scores with their description. As to the information sources, I have been using in particular manuscript scores (if they existed and if the authors accorded them to the archives of Broadcasting or *Czech Music Fund* or if the authors enabled me to take a copy of the manuscript scores in their private property).¹² Another written source of information consisted in the results of a questionnaire survey initiated in 1990 by the established *Association of EAM*. The questionnaires were designed to 1) prepare a database for the needs of the association, 2) constitute material for the information center of EAM in Bourges. The questionnaire included 10 items covering the author, title, place of origin, duration, category of the work (in line with Bourges typology), technical equipment and used sound material, saving of master tape, performing and subsequent performances, awards, recordings. My solution in formulation of sentence in database is following:

Signature(stud): EH039 (arch): —

Authors: Hlaváč Miroslav

Title: Fontana cantans

Date of origin: 7. 5. Year: 1971 Place: ES Pilsen

Technicians: K Genre: C Type of recording: S Time: 0:12:00

First performing: Year: 1971 Place: Pilsen

Recording: Awards: Rome 1972

Comment: One-movement composition. Material: Sound of "Singing fountain" in Belvedere, using of contact-microphone.

Form: AXA, sound objects are combined with murmur zones or breaks.

Methods: frequency thickening, simultaneous montage.

Composition problem: rythmization of heterophonic concrete sounds.

Detailed graphic score with text supplement.

Awards: Competition of ISCM, Roma, 1992.

Subsequent performances: Prague 1972, Sacramento 1972, Otrokovice (symposium) 1972, Utrecht 1973, Gera, Jena, Suhl, Weimar 1974, following in the years of 1976, 1977, 1978, 1979, 1980, 1981, 1983, 1989, 1990.

Selected to IDEAMA. Copy HIS MGF 839, 1990, Copy of recording and score GRM. INA, 1990.

Abbreviations are explicated in database introduction.

Further written information sources consist in the materials supplied by the *Music Information Center* (MIC, in Czech HIS) composers themselves (with variable information extent), concerts programs, newspaper articles. I compared my materials with the existing synthetic works (M. Kaduch, J. Novotný, L. Zajíček), with the existing catalogues and Internet databases complemented and maintained by Society for EAM: www.cibulka.cz/SEAH/SEAH.htm or www.cibulka.cz/musnova/compet.htm.

As to the issue of information sources

Sound records: Records marked "permanent records" are conserved in archives, which means that portion of the EA production of both radio and school studios, also enlisted in the database, has been erased from the archives of theses institutions and in case these records do not exist in author master copies, they do not exist at all. MIC holds only smaller part of copies of the production, although the significant from the artistic point of view (marked MGF). Today, great share of the so-called computer and live production is kept archived, if at all, by the authors in their private studios (*Forrotronics, Peli studio* etc.). These records are not signed. Sound records older than 1965 are virtually unavailable today, due either to their poor quality or loss. The information depth of archived records documentation varies. The best processed documentation could be found in the specialized radio studio in Pilsen (managed by Č. Kadlec) during the time between its founding and merger with a more general service, i. e. between the years 1967 and 1994.¹³

Problems are often with specification of the *time of origination*. Authors usually state the point of conclusion of a project on paper while its sound performance takes place somewhat later, in several stages (so called frequencies). Sometimes the two parts of creation included a great deal of time difference, for example due to prepara-

tion of the work in Pilsen and its sound recording in Prague in a better equipped studio, or writing conducted in Prague and the recording finished abroad (often in Graz or Bourges). Work in short, separate or night frequencies is rather typical for the Czech environment and has been limiting for the access of authors to studios. There have never been the proper circumstances for Schaeffer type of experiment, although Czech composers had been acquainted with the idea (1. visit by Schaeffer took place in 1966). In the database I either state the date of conclusion of a project (if no other information is available) or state the time span of creation of a composition.

As for the data on *duration* of a record, the most reliable source is the "birth certificate" of the permanent records in radio studios. The problem comes with *the species typology* EAM. The inquiries presented to authors then used typology presented at that period of time by *International Confederation of Electro-acoustic Music* (ICEM) in Bourges. It included separation into the following groups: a) *EAM*, b) *music for players and a tape*, c) *EA programming* and d) *live production EAM*. This hybrid typology had come from practice, in case of letters a), b), d), they were derived from the manner of creation while the category c) was content oriented. In the database, I prefer division into groups of *concrete* and *electronic music*, with possible subdivision according to *the record being a live one or not*. If our authors had, at the beginning, preferred the *concrete music* material due to its better "adhesion" to the acoustic material, later the choice of initial sound shifts more to become a part of *semantic gesture* of the work: for example I. Kurz intentionally used natural sounds in his composition *Reverie* (1982): the common, sense-receptacle reality stands for "dreaming" (reverie) on top of things, while the sound "subject the microscope" of phonoanalysis represents "hidden reality". Here it is reasonable to call the music as "concrete". On the other hand, A. Piños in the part *ZOO* of his series *Counterpoints of Nature* (1978) deliberately goes i. e. natural, sounds in order to achieve bizarre effect. Such deeper, in fact structurally stylish definition of music as *concrete* or *abstract* was created by P. Boulez: "I call abstract such relations that can be truly dematerialized, concrete are those that cannot be detached from material"¹⁴. D. Forró sometimes uses the term *neo-concrete* for music processed in a technologically new manner (through a sampler).

The nature of existing synthetic works about the Czech EAM

The work of V. Lébl *Electronic Music* (*Elektronická hudba* in Czech, SHV Prague 1966) has been the first to provide a specialized overview of the world happening in the EAM. The first more containing text of its kind, dedicated exclusively to the Czech and Slovak EAM, is the thesis and subsequently the dissertation work of J. Novotný – *EA Studios in the Czechoslovak Socialist Republic: Overview and Development to 1980* (*EA studia v ČSSR: Přehled a vývoj do r. 1980*, FF UK Prague 1979, 1980). The texts include detailed information on the activities of the so called *Commission for Electronic music* by science section of the *Association of Czechoslovak composers*, on six concluded *educational seminars EH* in years 1964–1970, detailed

listing of equipment of state studio workshops. The work also lists detailed sequence of basic events and lists of production partially including film and drama production, up to the year 1980. The text is constructed in factographic time sequence and pays no attention to the overall cultural or political environment. It is a reliable source of information on professional seminars with the use of the archive of *Protective Union of Authors (OSA)*, *Czech Music Fund (ČHF)*, *Theatre and Literature Agenture (DILIA)*, *Union of Czechoslovakian composers and performers (SČSKU)*, *Research Institute of Radio and Television (VÚRT)*, whose materials have been partially discarded, lost or are otherwise hard to obtain. It provides good information on the equipment of studios. It is less reliable in the time data in individual concerts, the weakest part is the listing of production.

Another summary work dealing with Czech and Slovak production is the thesis of L. Zajíček *An Oral History of EAM of the Czech and Slovak Republics* (San José University, 1995), which is an exact record of dialogues and correspondence of significant composers, technicians and musicologists dealing in EAM. Interviews are not supported with notes. The level and information depth of individual interviews varies, evidently dependent on the spontaneous communication and formulation skills of the interviewed, several significant persons are missing (f. e. M. Hlaváč). The texts are supplemented with factually correct short historical introduction on individual studios and their equipment (in 1993). L. Zajíček comes from an emigrant family and somewhat simple comprehension of the cultural and political situation of the era, especially the period of so called "normalization", is rather evident from the text, which often stands on statements (often unprovable) of influenced artists R. Berger (*"The electro-acoustic music has been officially pronounced as treasonous activity"*) and R. Růžicka. Another synthetic work related to EAM is personal dictionary of composers, programmers, technicians, musicologists, critics and publicists *Czech and Slovak EAM 1964–1994*, M. Kaduch the dictionary is a basic literature of its kind. It was elaborated on the grounds of not so well organized inquiry, therefore, some items are too detailed and include vocally instrumental production as well, and others are brief. The dictionary has been edited twice. Another important work of M. Kaduch are *Development Aspects of Czech and Slovak EAM* (in Czech *Vývojové aspekty české a slovenské EAH*, Ostrava, 1997). The text is introduced with a page long overview of the world development. The chapter *The Creative Concept in Historical Retrospect* (pp. 9–51) presents a time axe with indication of production of significant individualities of EAM with brief description of the poetics. The author again used mainly statements of the composers. Production of R. Růžicka is tended to in detail, as well as his use of the Czech composition program CCOMP. The closing list of international contest *Musica nova* prizes starts in 1994 without a word of explanation (1. renewed event took place in 1993).¹⁵ As for monographic works, a summary of EA compositions of Z. Vostřák with brief description is listed in the dissertation *Idea and Shape (Idea a tvar)*, Praha 1994) of M. Pudlák. Some authors provide their own broader explanation, terminology is also discussed by (D. Forró, M. Ištván, J. Jirásek, J. Kapr, R. Komorous, V. Matoušek, A. Parsch, A. Piños, Z. Vostřák).¹⁶

*To the historical, political, and cultural context*¹⁷

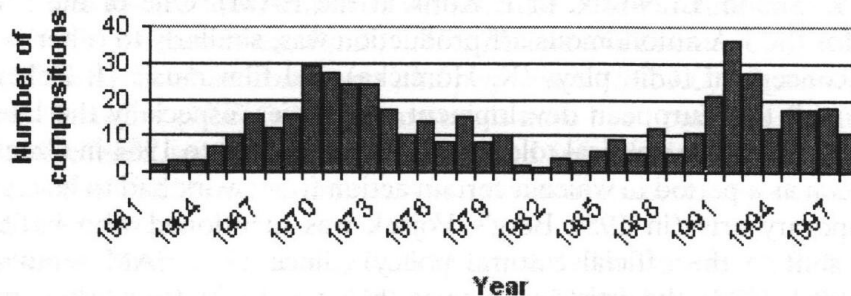
The first attempts at EA creations in our country appeared in the late 50's in the circle of the art society opposing in a close relationship with the poetics of the art and literary *Neosurrealism*¹⁸ to the official ideology of the *socialist realism* (R. Komorous, V. Šrámek, L. Simon, L. Novák, or P. Kotík at the EAM). One of the sources of inspiration for the EA autonomous art production was, similarly to other countries, the artistic concept of radio plays (K. Horčíčka) and film music (I. Zeljenka). In compliance with the European development, the sixties, especially the late sixties, were a period of relative political tolerance. The years 1958 to 1964 in Czechoslovakia can be seen as a period in which a certain action framework had to be created for the contemporary arts (in 1959 Berg's *Vojzek* was mentioned who indicated an intellectual shift in the official cultural policy). Since 1964 EAM seminars were organized (1964–1970), the artists were given the opportunity for working in studios (from the years of 1961 in *TV Studio in Bratislava*, 1964 *Radio Prague-Karlín*, 1965 *Studio in Radio Bratislava*, 1965 *Research Institute of Radio and Television*, *Sound Laboratory in Institute for Musicology – Academy of Sciences*, 1967 *Radio Pilsen*). Creative groups, typical for modernism (*Prague Group of New Music*, group *QuaX*, *Studio A*) were formed in the framework of the so-called New Music. These groups established cooperation on programs, including the concept of interdisciplinarity¹⁹. The technology of political power questioned the activities of these groups that, contrary to the pre-war avant-garde, accentuated individual creative freedom.

Only few publications were issued outside the framework set by the ideology of the socialist realism but their concepts were prepared very thoroughly (volumes *New Ways of Music* – in original title (o. t.) *Nové cesty hudby*, SHV Prague 1964, 1970, journal *Confrontation* (o. t. *Konfrontace*), red. by V. Lébl, Prague 1969). Foreign contacts were established. The members of the above-named groups visited regularly mainly *Darmstadt's courses*, *Warszawa's Autumn festivals*. Also, New Music representatives were invited: L. A. Hiller's visit in 1961, L. Nono's visit to Bratislava and to Prague in 1969, contacts with J. Patkowski mainly in Slovakia., official visit of the P. Schaeffer and F. Bayle from GRM to Prague in 1966, Stockhausen's visit to Slovakia in 1968.

While EAM played a special "secondary" role of underground in the early 1960's mainly in the art society (including "conspired" listening f. e. to works by Stockhausen and Boulez and home art attempts with tape recorders by Sonny or Grundig), so this kind of music, standing originally on the edge of the interest of the audience, found broader social resonance after 1968, mainly in Brno and Bratislava²⁰ (After all, jazz and rock music also played a similar, not necessarily natural role at that time).

The EAM production was permanently very high in the early 1970s since the results of political "vetting" could be felt fully after 1972. The compositions were also successful on the international scene (Štědroň's *Utiš*, Hlaváč's *Fontana cantans*, Růžička's *Gurges*, Slavický's *Praise to Cembalo* – o. t. *Chvála cembala* etc.). For a quantitative overview of the production see the chart.

**Graph II.1 - Quantity of created EA compositions
in the years 1961- 97**



Since the early 1970s the overview also included school production. However, it is important to know that the authors became notable later or participated in EA seminars. The downward tendency since the mid-seventies was so evident that the differentiation between professional studio and school production was statistically irrelevant.

The repressive political power was applied arguably in the restriction of public propagation of EAM after 1971. Concerts could not be organized especially in Bohemia and Moravia, the international competition *Musica Nova* was discontinued, as well as the well-established regular seminars, records, and periodicals. This was a result of replacing editors (E. Herzog in Supraphon publishing house, I. Vojtěch in *Hudební rozhledy* review, discontinuation of *Confrontation* journal, and others). The authors could not travel abroad so often. However, the restriction of the production was not global, only “less desirable” authors existed. I was not able to find any document confirming R. Berger’s statement on an official classification of EAH as “treasonable arts” by the Minister of Culture in 1971²¹. This statement is in contrary to the “masked” political style of that time. The so-called political document “*Lessons from the Crisis*” were rather instructions for tactics of hidden slighting than open totality typical for the 1950s. This model combined with inconsistency (sometimes politically purposeful) that allowed a number of cultural activities to scrape along on the “edge” of the political framework. The statement on a general suppression of EAM in this period is in contrary to the fact that the *postgraduate studies at Janáček Academy of Arts (JAMU)* could continue in the early 1970s. JAMU began to cooperate with the broadcasting corporation in Brno and could use its studio. In 1971 the *Sound Studio at Music Academy of Arts in Prague* was completed (I. Kurz made here his first *Etudes*). According to V. Syrový, the current head of the studio, even V. Dobiáš, a leading representative of the Communist party, supported the project (today we can only hardly identify his motivation).²² At the same time, universities were in the focus of political monitoring and they were the so-called “normalized” area. V. Kučera (secretary of *Union of Czechoslovakian Composers and Performers* in 1969–1983) was

an active composer of EAM with an international reputation. His *Kinechromie* appeared on Panton's record in 1970, his radio fresco called *Lidice* (the name of Czech village massacred during the second war) was issued at Supraphon in 1972. This composition had an untypical (poetic ideal of L. Nono) arrangement at Škoda factory in Pilsen and it was here very successful.

According to the authors themselves, several EA compositions were written at that time dealing with resistance against occupation and the power: *Avete morituri* from M. Ištván, *Angelion* from M. Hlaváč (1969), *Machinery* – o. t. *Aparát* (inspired with Kafka's *Castle* as a parallel of political irrational machinery), *Message* – o. t. *Poselství* from J. Hanuš (realized in Prague, January 26th, 1970!) in memoriam to J. Palach, student who scorched himself as a protest again the occupation of republic. Of course, a larger number of compositions dealt with more general philosophical topics, such as humanism, resistance against violence, and others.

After 1989 the actual position of the artificial EAM in the spectrum of culture became clear: it is really a kind of music for a narrow group of specialized audience, a kind of music whose extraordinary social resonance in the 1970 was evoked by a special political situation. The works, motivated by the political context, had mostly a partially ironic timbre in this post-revolution period. On one side, they turn back to the recent past, on the other side, they show mostly ambivalent feelings for the present. These works include e. g. *Looking West, Looking East* written by J. Jirásek (1991), *Spleen of Optimism* – o. t. *Splín optimismu* by E. Viklický (1991), *Quite Alone* (in Czech idiom "*Kůl v plotě*", it was a sentence pronounced by the first communist secretary M. Jakeš in his political speech. He designated by this idiom his political and personal situation shortly before the revolution in 1989) from young composer M. Marek (1996), *Rails* – o. t. *Mříže* by A. Piňos (1991). The only exclusion is Slavický's *Transillumination V* – o. t. *Prosvětlení* with its euphoric concept (1990) celebrating the revolution of 1989. Contrary to the 1960s or 1970s, there is hardly any social resonance for the politically accentuated artificial EAM. This music has also been postponed from the common broadcasting times of the radio until late hours due to little social interest. Also, the students have been interested less and less in this production. There are two causes for this: First, EAM is a minority genre in its substance; and secondly, the technical aspect has become common and to be "modern" is no longer "in". There is also a different and well-founded view of EAM that criticizes EAM as art favored by the State. This statement results from the fact that the EA production took advantage of the State's interest in the development of communication media as a tool of its power. This critical attitude has appeared mainly in countries in which studios and research institutes are funded mostly from public or municipal sources (France or Sweden in Europe).

How specific was in this view the situation in the socialist regime, in which area did the patronizing mechanisms work and in which area did the suppressing ones work?

The philosophy of socialism can be generally understood as a definitely formed expression of *modernism* with its belief in the historical progress through reason, in the good in man and his undying willingness to cooperate in favor of the whole. This

axiological concept developed since the Renaissance. It hit the political sphere significantly through the French Revolution that revealed its weaknesses. Marx's utopian *anthropological humanism*, which presumed that the inner development of man would become free by removing economic hardship through class struggle, in fact opened the way for a regime without the necessary democratic control mechanisms and thus to potential despotism of the power. The Marxism of the socialist regime had one thing in common with the European modernism of the 1960s: it was the belief in *universal solutions* even in *art*. However, the attitude of the socialism to new *technologies* coming from the West, as well as to the *functions of the arts* was not very clear. The beginnings of the Czech EAM are related to an institution that should have provided for a development of media technologies controlled by the State (*Research Institute of Radio and Television*). This institution was involved in the research into *stereo technology* in the broadcasting corporation in Pilsen. On the other hand, the regime was not flexible enough to accept, among other things, A. Svoboda's individual project (A. Svoboda was an active member of the so-called *Commission for Electronic Music*. He wanted to make the most of his experience from the U.S.A.) for the manufacture of computers and music software.

As for the arts, Marxism was based on Hegel's idea that the historical development has its final optimum stage in which no individual arts will be necessary any longer because it will be replaced by higher stages of spiritual life, that is, by science and philosophy. The *belief in progress and scientification of the methods of arts* (thus, an opportunity for a social and political control) allowed to a certain extent to use a "language game" to push EAM through to the official program of the regime (see Kolman's and Sychra's "incantation" by *cybernetics* that had been seen as a typical product of the bourgeois quasi-science in the period of Stalinism but later it was accepted as a science important for the Soviet future).²³ The focus on the technical aspects should have also protected from discussions on the *socialist realism in EAM*. The ideology of progress and enlightened reason is implicitly dangerous in the hands of the so-called ruling class (in fact, individuals and groups) that wants (and is able) to eliminate all seemingly incorrect solutions which results in the disqualification of certain personalities outside the politically protected zone, that is, Art unions in our country (for example, M. Kabeláč in EAM; however, he had realized his one and only work with EA's section *E Fontibus Bohemicis* in 1972, J. Kapr, M. Kopelent, R. Růžička).

Unclear concepts of the *social role of arts and the function of new technologies* resulted in discussions among artists in the fifties and sixties not only in our country. They were earnest at that time, not only a language game like in the seventies. In the sixties, the artists and the intellectuals had, at least on the Euroamerican territory, a relatively high social credit. J. Fr. Lyotard related the *modernistic* atmosphere to the resonance of the "*majestic*" in the environs of which both *artistic and political kitsch* and undermining *humor* can be found. The socialist discussions, regardless of its specifics, fitted with this more general frame. In the sixties, the idea of *progress* was complemented in a number of countries with a counter-motive discussion on

a possible stabilizing anthropological foundation of the arts (mainly T. Volek's comments in our country in the tradition of Czech and American structuralism).

In the Czech music reviews, information on *concrete and electronic music* appeared in the mid-fifties. This information came from German journalist sources. The first technical information (along with a picture of Schaeffer's Studio) was presented in the Czech music press by M. Novotný, *Czechoslovakian State Film's* sound engineer, in the story called *Music through the Eyes of Technology, the so-called Concrete and Electronic Music* – o. t. *Hudba očima technologie, tzv. konkrétní a elektronická hudba* (in *Hudební rozhledy* 1958, pp. 364–368). L. Mokřý and J. Albrecht were the first to inform on EAM in Slovakia. The aesthetics of EAM was discussed by E. Šimůnek. P. Kolman and L. Kupkovič organized *New Music seminars* (eight lessons since 1959 with the music by Stockhausen, Eimert, Křenek, and Schaeffer). M. Kabeláč performed similar activities at the Prague Academy of Music (after 1958). L. Hiller gave a lecture in Prague in 1960. Since 1960 comments on the *Darmstadt courses* and the *ISCM festivals* (by J. Klusák, C. Kohoutek, V. Kučera...) appeared in the Czech music press. A discussion was held in journal *Lidové noviny* (1961).²⁴ Especially M. Kopelet, J. Klusák distinguishing only "bad and good music" and J. Rychlík afraid of "axiomatization of music" formed their statements in the early 1960s that went far beyond the ideology of *progress and understandability*.²⁵ The one-year discussion at *Hudební rozhledy* journal was closed by A. Sychra's article *Music Experiment in the Light of Science* – o. t. *Hudební experiment ve světle vědy* (1963, pp. 311–316). He accentuated, in this time, tolerance of opinions, the function of artistic fantasy, and usage of technology as an auxiliary tool. He formulated an interesting opinion based on his own experimental experience with the research into paralinguistic parameters of speech (along with A. Sedláček). His proposal to extend EAM's possibilities involved mainly the use of *hidden semantics of paralinguistic* (that is, mostly intonation) *features of speech*. Sychra referred to B. Asafjev, cybernetics, and A. Moles information theory. Sychra's so-called *psycho-acoustic* basically correlated with Schaeffer's attempts in *solfege* (that is, transfer of sound, hearing experience without using verbal codes).²⁶

V. Lébl intended to continue his *psycho-acoustic research* too in the project of the foundation of a *sound laboratory* that should have been prepared by the *Commission for Electronic Music* led by him. However, this ambitious program was not put into practice, except for the foundation of the *Experimental Studio* in Pilsen in 1967.²⁷ Neither was L. Simon's and I. Janoušek's progressive project put into practice in Ostrava (1968). As the authors said, it was due to the typically problematic relations of rivalry between the official administration and the hidden power of the political structures. Only a humbler project was put into practice as part of the *Electro-acoustic Laboratory of the Institute for Musicology of the Academy of Sciences* in cooperation with the *Experimental Studio* in Pilsen and a recording studio in Prague. There were very good theoretical prerequisites (*structuralism*) in our country for the development of the *psycho-acoustic research*, which has been implemented in relation with the EAM world-wide, but it was practically terminated with M. Jůzl's research

program.²⁸ The research into wind in the *Sound Studio* of the *Prague Music Academy* has focused on instrumental acoustics.

A breakthrough year for EAM was 1964 when the *First Electronic Music Seminar* was held and the miscellany called *New Ways of Music* was issued. A total of five seminars provided for free training for almost all-active composers. After 1970, EAM training was only possible at universities, originally in postgraduate studies. Work in radio studios did not offer any opportunities for experimenting systematically with materials and sound perception. The political power provided, unwillingly and secondarily, for operational background. The radio station in Pilsen had been finished just before World War II (after the war, a research by *Research Institute of Radio and Television* into stereo broadcasting. This Institute offered its equipment to the Pilsen studio). The *Prague Audiostudio* rented out its studio in the so-called Palace of Culture (1990–1994). This studio should have been used originally for sound distribution in the Congress Center during party congresses. In the Brno radio studio they could mostly work at night using non-specified equipment that was moved very often. Not even in Pilsen where the conditions were rather calm and the technical staff was reasonably proficient (technicians Č. Kadlec, V. Ježek) broadcasting times were relatively short compared to those abroad. Besides, the information from the Pilsen studio on the “*effective use of time*” confirms the preference for usual good prepared composition work. In the Prague radio studios, there was additional pressure by other editors. The best opportunities, including improving technical equipment, have been at *Janáček Academy* in Brno and at *Music Academy* in Prague.

As for access to information, contacts with other EA studios mainly in Poland, Germany, Italy, France, and the USA, were established in the late 1960s. It turned out that the situation of the sixties was generally, not only in the socialist countries, so different that it could only critically take up the pre-war tradition. The pre-war modernistic belief in an immediate impact of arts on the quality of the social reality was replaced by individual scepticism. Besides, a systematic interdisciplinary cooperation between Prague and Brno failed. As for the internal professional situation, both the attempts to defend the Modernism and the avant-garde (especially the requirements as to creative freedom, analytical reflection and self-reflection) and their criticism and criticism of the cheap misuse of the forms of the avant-garde expression: “*It is difficult to say when the conditions for modern arts in our country were worse: whether it was in the fifties when modern arts were prohibited or today when we are experiencing a strange wave of inflation... New music has to face two different obstacles at a time. One obstacle is the distrust in the form of an administrative pressure, the other obstacle is the stylishness... The administrative pressure can never be permanent. It can only have a negative impact on external circumstances of the music life, not on the substance of creative activities. The examples from the past show that the policy of prohibition can sometimes be of unintentional benefit for modern arts since it provides with its pressure for an extremely effective “sophistication of minds”. Compared to this, stylishness is a generous giver, it is tricky, artful, omnipresent.*”²⁹ Group formations fall to pieces not only under the pressure of small but permanent administrative repression

but also due to lack of interest by the society and due to their own principles of preferring individuality to groups, which have a specific accent in the socialist context. The Brno formations (*Group A*, *Studio of Authors*, as well as *Q*, originally focusing on graphic arts, later interdisciplinary) have survived. Also, contacts of various artists are rather successful, perhaps because of a perceived "opposition" to the Prague scene. The information published in music reviews lost its quality in the early 1970s. Some personalities emigrated under the pressure of circumstances (D. Brožák, P. Kolman, R. Komorous, P. Kotík).

The seventies were not only in our country but also in the whole Euroamerican world considered a period of a massive coming of consumption and conform way of life. Being an artist meant having *just a common job*. The category of the "*majestic*" was redefined. The relationship to new technologies became unmarked, only few authors perceived a relationship between *technology* and *dehumanization*. The so-called *environmentally* oriented authors were classified as "extremists". The shift to "technical" music became again a domain protected against the ideological zone. Thus, even those composers who could not organize public concerts were allowed to work in EA studios at that time (for example, A. Piños was mentioned explicitly). Moreover, musicologist M. Kaduch described the seventies as a period of development in relation to the EA creation, not to the possibility of communicating in an open way: "*The seventies were in their global creative views an unprecedented nursery of a multitude of inspirations arising from the common trends or technologies of EAM of that time but creating new values by their way of processing them. Looking back, we can say that they were basic values of documentary, historic importance...*"³⁰ He mentioned the works by I. Loudová, I. Kurz, A. Parsch, A. Piños, R. Růžicka, M. Slavický in this context. In the seventies, mostly individual contacts of the EAH composers with abroad continued (with Bourges, Paris, Utrecht, Geneve, Gera etc.), only V. Kučera was the official representative of the composers, as well as a member of the ISCM board in 1978–1983.

In the eighties, the relationship between the historical and political context and the EAM production was not very evident. The radio production was influenced, among other things, by economic pressure. The reduction of concerts continued, as well as the opportunities to participate personally in larger events abroad. In 1979 and 1980, Novotný's first phenomenologically based works on the EAH were published. In 1989 a separate section was prepared in the Palace of Culture as part of the conference called *Application of Artificial Intelligence AI'89*. This section dealt with computer arts. The discussions were led by composer R. Růžicka.

Early in 1990 the *Society for EAM* was established in Czechoslovakia. Composer K. Odstrčil and a head of the Moravian branch R. Růžicka were appointed its president and vice-president. Its members are both composers and engineers and musicologists. The Society established, among other things, official contacts with *ICEM* in Bourges and *ICMA* in San Francisco early in 1990. A meeting with the representatives of Bourges (Ms. Barrière and Mr. Clozier) was arranged on 26 April 1990. In the same year, shortly after the opening of *Audiostudio* in Prague, P. Henry,

a significant personality of the history of concrete music, paid a visit to Prague. He presented here his book called *Tibetan Book of the Dead*. In 1990 M. Slavický worked in Bourges, A. Piños and M. Košut in Lyon, E. Spáčil in Geneva. It was in the same year when I delivered a survey selection of the Czech EAM, copies of scores, to the archives of GRM. INA. Society for EAM began to organize regular play-backs, EA compositions were regularly presented in the *Exhibition of Experimental Music* (see above). The contacts, with official ideological and partially economic support, became more frequent. The production in radio studios stagnated from financial reasons. *Atelier 90* (M. Kopelent), *Society for New Music* (I. Bierhanzl), *Studio of Contemporary Music* (I. Loudová), and *Audiostudio in Janáček Academy* (D. Forró, I. Medek) were particularly involved in the propagation and maintenance of foreign contacts. In fact, the artificial EAM did not provoke experts or public interest in the extent of the sixties and the early seventies. Only live audiovisual projects by authors from Brno (D. Forró and I. Medek in cooperation with percussion group DAMA DAMA) attracted a slightly greater interest by the public. A new phenomenon was the production of *home studios* (D. Forró's private *Forrotronics* had the highest production after 1985; it produced mainly *Live electronic music*). After 1990 a new philosophical approach appeared – no international or national creative groups with a program but support to *local culture*, *half-professional EAH* for close friends, often combined with ecological, religious, philosophical, and ethnological aspects, in unusual forms, in an unusual environment. P. Samlík from village Kojetín (he owns here his home studio) was a successful example of this approach.

Briefly on technological determination of elektro-acoustic music

In our EAH the *technical conditions of the studio equipment* have also an indisputable impact on the *composition strategy of the composers*. The opportunity of using new technologies always provokes a certain response from the authors. At present *Studio F* in Radio Karlin Prague, *Sound Studio* in Music Academy of Prague and *Audiovisual Studio* in Janáček Academy in Brno are equipped equally with commercially available products so that the specifics of production from the individual studios is determined predominantly by other factors. For a detailed description of the studio equipment see J. Novotný's work (by 1980) and L. Zajíček's work (by 1993). The equipment after 1993, related to specific works, is mentioned in the author's thesis.³¹ It is D. Forró who has been involved systematically in the problematic of new technologies in the Czech musicology.

In the first phase (by 1967) the Czech studios used common studio equipment except for the *Barrandov Film Studio* that had a very good synchronization equipment used for example by Z. Vostřák in his composition called *Weights of Light – o. t. Váhy světla* (1967).

1968 was a breakthrough year for composing in the *Experimental Studio* of Czech Radio in Pilsen (1967–1994) when stereo equipment was purchased. One year later quadraphonic equipment was purchased. In 1968 recordings were made in which the stereophonic effect was transformed into a semantic gesture: *Timbry* composed by

R. Růžicka, *Spiral and Labyrint* by V. Kučera. One year later the quadraphonic effect was used in the compositions *Per Aspera ad Astra* composed by M. Haase, *Gurges* by R. Růžicka, *Kinechromie* by V. Kučera, *Fiction* by K. Odstrčil and *Metaphonia* by M. Hlaváč in the year of 1970 and *Prolog, Labyrint* by A. Parsch one year after. It is interesting that after this period the opportunity of using a quadraphonic effect was no longer primarily inspirative for the composers. From 1967 until mid-1970 the production maintained a very good quantitative level (see the chart) while mostly analogue *phonoanalysis* was used rather than *phonosynthesis* that was used only when the composer had a clear syntactic concept in which he needs a detailed control of the structure or a semantic expression intention (such as the *Futurism* in Hlaváč's *Star Story* – o. t. *Hvězdný příběh*, or the bizarre, humorous effect in Piños's *ZOO*).

It was in particular Z. Lukáš (*Arcecona*, 1968), M. Hlaváč (*Astroepos*, 1969) who worked with the so-called *pure phonosynthesis*, but mostly they worked in a combined methods (*Angelion*, *Biochron*, *Chimerion* composed by M. Hlaváč, *Transposizioni* by A. Parsch...).

A remarkable decline in the studio production in the early 1980s was linked directly with both political and economic difficulties, which resulted in the fact that the technological equipment fell behind compared especially with the opportunities of pop music. This situation resulted in a lack of motivation for young composers. Due to limited possibilities of further education, the older generation of authors could not keep up with high technical requirements as to the studio work, in particular after the mid-1980s when the analogue technology was replaced by analogue-digital and digital technology using commercial synthesizers, samplers, and effect devices mostly from foreign suppliers (*Research Institute of Radio and Television's* products were near the end of their service in university studios). A new generation of composers appeared who increased slightly the total amount of production. It was in particular E. Spáčil, J. Jirásek and K. Odstrčil who worked in the Pilsen studio with the aim of using new devices as *universal music instruments*. The source of the sound is no longer so important. On the contrary, the processing of the sound, the effects in the parameters of color (sampling), and the artificial echo are of increasing importance.

In the early 1990s computer technology appeared and the MIDI standard was used broadly (D. Forró has been using this standard privately since 1985 in his studio). Depending on technological possibilities, the *aesthetic ideal* moved towards greater *syntactic freedom, improvisation, and syncretic combinatorics* (this was also a result of the coming of a new generation of composers).

Another important center of autonomous art creation was the studios in Prague. In the beginnings, it was the studio in Karlín with no special equipment or the film studio at Barrandov. From 1990 until 1994 it was *Audiostudio* in Palace of Culture, then *F Studio* in Karlín where all existing equipment was installed. *Audiostudio* was headed by composer J. Jirásek. Since the very beginning *Audiostudio* was considered equipped as standard, that is, with a 24-track mixing console, a controlled computer, samplers, synthesizers, and effect devices. It was first J. Jirásek, E. Spáčil, B. Mikolášek, R. Růžicka who used the advantages of this studio for composing. J. Jirásek commen-

ted on the aesthetics: “the aesthetic of the Audiostudio essentially as opposed to the one of the Experimental studio in Pilsen, which ... in essence inclined to the creative philosophy of the time, on one hand, the overall philosophy which in those years in Europe, for example, was dominant. And (the Pilsen’s Experimental Studio’s aesthetic was also defined) from the point of the view of technical possibilities of the time ... there emerged, in essence, specifically the genre, music for tape. So on the other hand, our Audiostudio aim is, in essence, totally different, and is oriented towards the end that the music can be performed live...”³² The idea of “creative philosophy of time” concerns substantially the syntactic strategy of composing (narrative – space) and the extent of syntactic consistency. It is true that the aesthetics of *Audiostudio* relates (except for the creation by V. Matoušek, A. Piños, M. Pudlák or R. Růžička) to more free syntactic structures, to variability of color (sampling, echoes), manipulation with rhythmic (possibility of computer splitting to any values and algorithms), *live electronic music* (based on the capacity of the processor), and combinatorics of genres. This approach cannot be seen as directly “opposing” to the Pilsen approach as at least part of the Pilsen production developed in a similar direction depending on changing technological possibilities. Similarly to part of the Prague later production, it is also involved in the sophisticated temporal form. The situation was also similar in the *Studio F* in Karlín headed by composer R. Rejšek. University studios included the *Audiostudio* in Brno with composer R. Růžička who taught composition from 1969 until 1994, and I. Medek and D. Forró who have taught composition after 1993. A significant change in the equipment of the studio was the gradual purchase of YAMAHA products after 1994 (thanks to D. Forró’s contacts with this company). It was in 1994 when a shift in the poetics of composition occurred from the work with the Czech statistical program CCOMP and later Isokwant, promoted by R. Růžička among his students, to a concept that was concerned with getting acquainted with new stimuli of the commercial hardware and software, *live electronic music* and syncretism were preferred in aesthetics. *Sound Studio* in Prague Academy was founded in 1970. It was headed by V. Syrový. This studio was used for ordinary lessons (obligatory completion of courses of composition in the 3rd year), research into acoustics of wind, and recording concerts in the school building. The production of the studio did not have a specific profile of styles. The studio owns a Theremin’s instrument, which is something of a curiosity. Out of the private studios, D. Forró *Forrotronics* is the oldest and most productive studio (since 1985).

The amount of its production (see the chart) and its profile have been linked indisputably to both general tendencies of development in Europe and the specifics of the cultural and political situation in the Czech Republic. They are also closely conditioned on the technical quality of the studio equipment, the time available for recording, and the composers’ education in both composition and technology.

ENDNOTES

1. The dissertation *Aesthetic Models of European EAM and EAM in Czech Republic* (*Estetické modely evropské EAH a EAH v ČR*, Olomouc 1998) consists, as the name suggests, of two base parts. The first contains more detailed definition and typology part. The next part is dedicated to four authors (P. Schaeffer, K. Stockhausen, I. Xenakis, P. Boulez), whose work (compositions, theories and institutions) has been fulfilling the function of a model of a possible approach to EAM. Further explanation of the selection cannot be discussed here. The first part is terminated by a chapter on *Current questions of EAM* with introductory information on present institutions, companies, periodicals and international publications. The impact of this chapter lies in the overview of the problems related to *ontology of a work, typology of creative strategies, terminology, analysis, functions and styles of EAM*. The latter portion of the work EAM in the Czech Republic is dedicated to the historical, political and cultural context, specification of technological conditions within the Czech Republic, analysis of the poetics of a work with practical samples, topical profile of the EAM production. It is closed with an overview of EA creation. Further information can be obtained from www.sdmusic.cz/czmic.seah or www.cibulka.cz/SEAH/SEAH.htm, or dohnalova@email.cz.
2. *Semantic gesture* is an original semiotic term of the Czech structuralism. J. Mukařovský has defined the term especially in studies *Genesis of Sense in Mácha's Poetry* (*Geneze smyslu v Máchově poezii*), *About the language of poetry* (*O jazyce básnickém*), *Intentionality and Unintentionality in Arts* (*Záměrnost a nezáměrnost v umění*) as "unifying semantic intention" s. g. is a profiled measure of material homogeneity, structure hierarchy, namely its contradicting constituents. It covers the inner dynamics and processing of sense. (Mukařovský J.: *Studies on Aesthetics* (*Studie z estetiky*, Praha Odeon 1966). The term is used in musicology specially by V. Karbusický and E. Tarasti. The term is accepted also in volume *Principles of Music Semiotics* (*Základy hudební sémiotiky*, ed. J. Fukač and col., FF MU Brno 1992, here chap. *Semantic gesture*, vol. III by L. Dohnalová).
3. In the Czech environment, the taxonomy of "core and transitions" has pushed through J. Volek in *Principles of General Theory of Art* (*Základy obecné teorie umění*, SPN Praha 1968). It has been elaborated especially by J. Fukač and I. Poledňák.
4. *Banal creation* uses routine workmanlike procedures without any special demands for the author or the recipient. *Trivial creation* is described alike, moreover, it is typical with its selection of simpler procedures. *Kitsch* is typical with its intentional selection of proof procedures that may be very refined. At the same time kitsch pretends to be art. If it is not concealed, (for example the works of the Brno team), than it is rather its poetisation, ironization or turning into a joke by a double code. This procedure has its tradition in poetism and surrealism. The EAM expands the possibilities of creation of kitsch and its double encoding.
5. Namely in the French speaking countries a functioning analytic model trying to separate the author's (*poesis*), so called *neutral*, and recipient's (*aisthesis*) aspects was of a great influence in the second half of the 70's in EAM too. This model was initiated by J. J. Nattiez (in *Fondements d'une sémiologie de la musique*, Paris U. G. E 1975) inspired by J. Molino, whose structuralism has a relation to the tradition of Prague linguistic club.
6. From the recent encycl. it prefers as the root term "*Electronic music*" *Handwörterbuch der mus. Terminologie* (ed. H. H. Eggebrecht, from 1977). German tradition stressing author is W. M. Stroh, *Grove New Dictionary of Music and Musicians* (ed. S. Sadie, 1980), which is no surprise, since the author is one of the founders of the German electronic music H. Eimert. Very objectively conceived entries with "electronic music" as a "roofing entry" can be found in *Musik in Geschichte u. Gegenwart* (ed. L. Finscher from 1995), written by W. Seidl, furthermore, the entries by J. H. Appleton in *The New Harvard Dictionary of Music*. In the Czech literature the amplest treated entry is in *Dictionary of Czech Music Culture* (*Slovník české hudební kultury*, ed. J. Fukač, J. Vysloužil 1997) with entries by A. Parsch and M. Bláha. *RILM* uses terms *electronic music* and *computer music*, *DEGEM* archive in Berlin, consisting of about 18.5 thousand EA works, uses the term *electro-acoustic music* (More detailed information in dissertation of L. D.). The alternation of the terms EAM a EM also reflects in the names of various institutions and their periodicals – e. g. *Österreichische Gesellschaft für Elektroakustische Musik* in Austria and its affiliate *Institut für Elektronische Musik* in Graz. In Czech lands the *Society for EAM* has been founded with ties to the practice of Bourges and CIME.
7. F. R. Moore is the inventor of a widely used program MUSIC V (see his studies e. g. in *Proceedings Companion to Contemporary Musical Thought*, vol. 2, ed. J. Paynter and col. Routledge London and N. Y. 1992)

8. J. C. Risset regularly publishes texts on technologies of sound synthesis especially within the IRCAM (see e. g. his study *Quelques aspects du timbre dans la musique contemporaine*, in *Psychologie de la Musique*, Paris 1994).
9. The database can be ordered at the address of the author (see note 1).
10. On March 19, 1990 the first playing of EAM took place within the framework of the newly founded *Society for EAM*. During this concert in the Music Theatre works that had been successful abroad were played (*Chvála cembala* – M. Slavický, *Labyrint* – J. Jirásek, *Ghandi* – K. Odstrčil, *Hry* – E. Spáčil, in retrospection *E fontibus bohemicis* – M. Kabeláč), see in: *Hudební rozhledy* 1990, N. 6, p. 251.
In 1990 the *III. Exposition of EAM* took place, and pointed to the interrupted tradition in 1970. The first and second *Expositions* took place in 1969 and 1970, when they were, for political reasons, banned. *III. Exposition* was organized on October 6, 1990 and presented overview of Czech (and emigrant) as well as foreign EA and computer production throughout the day. The music exhibition was preceded by two-day seminar “*Avant-garde and postmodernism*”, that commented on several works of the exhibition. The organizers were the *Society for EAM*. Since the year 1991 the EAM has been presented in the Janáček Hall. The first concert presented the works *Spleen optimismu* (E. Viklický), *Digitální hudba 02/91* (D. Forró), *Bucina pro tr. a mgf. pás* (R. Růžička), *Tarsanova smrt* (K. Odstrčil), *Lux in Tenebris* (A. Piños), *Labyrint* (J. Jirásek). Composers commented their works themselves during these exhibitions.
11. Regular event has been dedicated since 1990 to the presentation of the Audiostudio Prague (*From new records of Audiostudio*). The agenda has been prepared by the director of the studio J. Jirásek. The productions of the Brno and Pilsen studios have been presented irregularly within the time given to regional studio. In 1992, an overview series, starting with one of the first works of the Brno studio. Selection had been provided by R. Růžička.
12. I accept the division of scores to *prescriptive and descriptive*. Majority of Czech authors uses prescriptive charts and instructions, some archive more elaborate descriptive scores.
13. Other non-private studios, which also record autonomous EAM works, i. e. the Radio Studio in Brno, Prague, school studios of Academy in Prague and Janáček Academy in Brno keep only brief accounts incorporated into the overall framework of their production.
14. Boulez P.: *Entre ordre et chaos*, in *InHarmoniques* 3, IRCAM 1988, p. 106.
15. Correspondence, programs and preview of compositions of so-called “samizdat” see at: www.cibulka.cz/samiz/cibruz.htm.
16. Beginnings of EAM in Czechoslovakia are best documented in the catalogue of *International Electronic Music Catalog* (MIT Cambridge 1968). István M.: *Method of Montage of Dissociated Elements in Music* (*Metoda montáže izolovaných prvků v hudbě*, Panton Praha 1973, Jirásek J.: *Changes in the Semantic Relationships Among Basic Musical Parameters and Their Perspective in EAM*, lecture in Graz. Separat. Kapr J.: *Constants, Outline of Personal Method of Specific Signs of Composing Selection* (*Konstanty, nástin metody osobního výběru zvláštních znaků skladby*, Panton Praha 1967, also *Theory of Indication and Variation* (*Teorie naznačování a vychylování*, in *Hudební rozhledy* 1970, pp. 358–365, 417–422. Piños A.: *Zum Princip der Latenz in der zeitgenössischen Musik*, UE Wien, N. 26823m pp. 103–113. Vostřák Z.: *Lectures on Music Poetics* (*Kapitoly z hudební poetiky*, in: *Konfrontace* 1969 N. 1, pp. 6–13) etc.
17. This chapter was analyzed in greater detail in the above-mentioned dissertation, mainly in quotations and detailed references.
18. This interconnection between the beginnings of the Czech EAM and Surrealism and its poetics of paradox, black humor, and formal technique of montage (let us mention Šrámek’s *Laughter* – o. t. *Smích* to J. Kolář’s text from 1962, Novák’s *Geology or How We Killed Dad* – o. t. *Geologie, aneb jak jsme zabíjeli tatínka* from 1963) became a foundation mainly for the Brno poetics. The cooperation among various artists survived in Brno while it disappeared completely in Prague in the seventies. The surrealist mood was also a foundation for the affection for P. Schaeffer’s paradoxical personality.
19. The period at the turn from the fifties to the sixties was well characterized in *Prague Group of New Music*’s article republished in *Confrontation* review in the section of *Chronicle and Documents* under the abbreviation of musicologist V. Lébl from the unpublished article for *Hudební rozhledy* from 1965. This article defended the concept of the group against administrative obstructions. The group was founded on 27 March 1965, its art manager was M. Kopelent. R. Komorous presented its EA composition called *Malevič’s Tombstone* – o. t. *Náhrobek Malevičův* in the group. On 26 November 1965 the group introduced itself to the public at *Czechoslovak Writer* publishing house participating in the discussion arranged by *Face* magazine.

A collective concert should have been organized in the inspiration of *Groupe de Recherche Musicale* but it did not take place after all. Thanks to I. Poledňák and M. Hercík the group was asked to arrange regular music programs and discussions on current arts at Reduta (lectures of musicologist V. Lébl and publicist E. Herzog). On 24 April 1965 the 4th evening of the group was arranged at Reduta, for the first time concerning *Electronic and Concrete Music in Czechoslovakia*. EH gave a lecture on *New Music* on 1 September, the members of the group participated in courses in Darmstadt. On 18 December a program was arranged at Reduta dedicated to Z. Vostřák's works. Early in 1967 the group published a miscellany at the expense of the *State Theatre Studio* containing information on activities, professional articles, and profiles of members. Let us mention in particular out of the outstanding *History of Music Experiment in Czech and Moravia* in 1967 pronounced by Moravian composers J. Berg and A. Piňos. So the proclaimed cooperation with the Brno creative team of the *Group A* (founded in 1967 and headed by A. Piňos) was established. On 15 April 1967 contacts were established with P. Kotík's *QuaX Group*. *QuaX Group* was founded in 1967. It proclaimed a concept of spontaneous, continual music in which the pleasure of creation was primary. The group presented mainly *Live Electronic Music* and poetic ideal of J. Cage.

20. The poetics of syncresion of genres and kinds, the poetics of paradox, typical for Brno, participated undoubtedly in the success of the Brno *Microfestival of Experimental Art* with *New Music*'s two concerts. The team project – a music horror called *Silence of Little Birds in the Forest* – o. t. *mlčení ptáčků v lese* with an untypical “multi-space” arrangement had its premiére in this last event before the political suppression of the EAM presentation. In Slovakia, EAM was presented even after 1970 but very rarely. In 1977, as part of the traditional international festival BHS, a functionally unnatural phenomenon appeared as EAH played the role of “underground”. The EAM concert attracted so much attention that people gathered even on the street. This resulted, as R. Berger explained, in the ban on activities of this kind. (Personal statements by R. Berger, in Zajíček L.: *An Oral History of EAM...*, San José University 1995, p. 85.
21. R. Berger mentioned this in an interview with L. Zajíček, *ibidem* p. 84.
22. *Ibidem*, p. 182.
23. The so-called *Commission for Electronic Music*, which prepared a seminar on EAM in 1964 and the foundation of a studio in Pilsen, established tactical contacts with the *Commission for Cybernetics of the Academy of Sciences* in 1963 and took over this title temporarily. Cybernetics should have been rehabilitated as a science not only in Kolman's work but also in the popular encyclopaedia called *The Age of Cybernetics* that contained an article by L. A. Hiller who visited Czechoslovakia. Later this title was abandoned.
24. Literární noviny 18. 11. 1961. Discussion realized composers, musicologists and technicians J. Burghauser, S. Havelka, E. Herzog, V. Lébl, J. Rychlík, A. Svoboda, V. Šrámek and V. Trojan.
25. This situation was very well described in following articles: Klusák J. *How We Made Music in the Sixties* – o. t. *Jak jsme dělali hudbu v 60. letech*, in *Conserve for Music (Konzerva na hudbu)* 1990, N. 1, ed. M. Kofroň. Rychlík J.: *Composers and New Methods* o. t. *Skladatelé a nové metody*, in *Hudební rozhledy* 1962, p. 1, Kabeláč M.: *New Directions in Contemporary Music* o. t. *Nové směry v soudobé hudbě*, in *Hudební rozhledy* 1963, p. 12.
26. Sychra A., Sedláček K.: *The Method of Psycho-acoustic Transformation Applied to the Investigation of Expression* (in English), in: *Kybernetika*, UTIA ČSAV, PP. 1–28.
27. Musicologist V. Lébl intentioned the ample research of sound objects: “*Meanwhile I estimate that we will have to put some 10 thousand objects into practice*”, in: *Hudební věda* 1969, N. 3, p. 269 in the frame of article *Outline of Typology of Sound Material* – o. t. *Nástin typologie zvukového materiálu*.
28. Jůzl M.: *Possibilities and Sense of Research of Objective Parameters of Emotional Expression in Speech and Music* – o. t. *Možnosti a smysl zkoumání objektivních parametrů emocionální exprese v řeči a hudbě*, in: *Colloquia musicologica* 1976 Brno.
29. *Three guidelines and several parts of the dialogue “On the substance of New Music”*, lecture in Reduta on 30 January 1966, reprint in *Confrontation* N. 1, p. 35.
30. Kaduch M.: *Evolution's Aspects of EAM...*, o. t. *Vývojové aspekty EAH...*, s. 21.
31. More detailed information in my dissertation pp. 124–128.
Zajíček L.: *An Oral History of EAM...*, p. 166.

APPENDIX

Brief list of EA compositions in the Czech Republic in the field of autonomous art creation. Original film or dramatic music has been included only when it has been described by its author as usable separately.

“+” means co-authorship of several composers. Authors using pseudonyms D. Forró, P. Graham and M. Mays are mentioned with their civil names K. Horký, J. Pokorný and I. Klúčovský.

The titles have been abridged. Detailed information is included in the database and in the chapters called “Analysis of the poetics of the work” and “Profiles of topics” (in dissertation pp. 129–148).

Author	Title, Year
Adamík Josef	Z tajemné laboratoře v Bílých Karpatech (From the Mysterious Laboratory in White Carpathians), 1979
Bardonová Jana	Konkrétní etuda (Concrete Etude), 1995
Bardonová Jana	Etuda (Etude), 1996
Barič Bojan	Scéna lyrické vize, balet (Scene, Lyric Vision, ballet), 1977
Barič Bojan	Canonicus, 1977
Barič Bojan	Konkretino, 1975
Bárta Jiří (+)	Souboj pro 2 klavíry a mg. pás (Duel for Two Pianos and Tape), 1970
Bárta Jiří (+)	Kvadriga (Spřežení) pro mg. pás, 1971
Bárta Jiří	Socha Eporedorixova (Statue of Eporedorixos), 1971
Bláha Ivo	Ta láska, hudba k básni J. Préverta (This Love, music to poem of J. Prévert), 1977
Bodorová Sylvie	Tobě (For you), 1979
Brožák Daniel	Memento, 1973
Brožák Daniel	Rigorosum, 1975
Brožák Daniel	Panychida za D. Šostakoviče (Panychis for D. Š.), 1975
Brožák Daniel	Nečas trhovců (Bad Weather for Stall-Holders), 1994
Brožák Daniel	Tape compositions, 1973
Brožák Daniel	Composer, 1984
Brožák Daniel	Patologie (Pathology), 1991
Brožák Daniel	Yamaha kvartet č. 7 (Yamaha quartet N. 7), 1985
Brožák Daniel	Tape compositions, 1976
Bubák Bohdan (+)	Hudba pro syntezátor, strunné nástroje... (Music for synth., strings...), 1984
Bubák Bohdan (+)	Útěk I, II, III (Runaway), 1987
Bubák Bohdan (+)	Sedneme si (Let s Sit Down), 1987
Bubák Bohdan (+)	Samé basy (Only bass voices), 1988
Bubák Bohdan (+)	Místy mlhy (Foggy Here and There), 1987
Bubák Bohdan (+)	Commodo, 1987
Bubák Bohdan (+)	Zrcadlo (Mirror), 1987
Bubák Bohdan	Bertík, 1987
Bubák Bohdan (+)	Alfa centauri, 1988
Bukový Viliam	Rozkaz, Hirošima (Command, Hiroshima), 1962
Dandara Liviu	Čas, který se zastavil (Stopped Time), 1971
Dandara Liviu	Fresca, 1973
Dlouhý Martin	Verze 1 (Version 1), 1992
Emmert František	V. symfonie s mg. pásem (V. Symphony with tape), 1971
Fiala Petr	Pocta M. L. Kingovi (A Tribute to M. L. King), 1973
Fiala Petr	V tom třiačtyřicátém (In 1943), 1975
Fiala Petr	Memento, 1975
Filas Juraj	Krvavé Te deum (Bloody Te Deum), 1990
Frajt Lida	Asteroidy (Asteroids), 1967
Fried Alexej	Jazzové concertino nástroje a pás (Jazz Concertino for Instr. and Tape), 1992
Fuchs Robert	Etuda (Etude), 1993

Gahér Josef	Passacaglia, 1974
Gahér Josef	Dvojkonzert (Double Concert), 1975
Gemrot Jiří	Hudba k pásmu sovětské poezie (Music to Soviet Poetry), 1979
Haase Miloš	Per aspera ad astra, 1969
Haase Miloš	Atlantis, 1969
Haase Miloš	Sfumato, 1971
Haase Miloš	Epos Gilgameš, 1973
Haase Miloš	Pocla Albrechtu Dürerovi (A Tribute to A. D.), 1973
Haase Miloš	Ormai, 1998
Hanuš Jan	Concertino, 1973
Hanuš Jan	Pochodeň Prometheova (Torch of Prometheus), 1965
Hanuš Jan	Fragmenty z Prometheie I. (Fragments of Prometheia), 1965
Hanuš Jan	Ecce homo, oratorium, 1980
Hanuš Jan	Fragmenty z Prometheie II, 1977
Hanuš Jan	Poselství (Message), 1969
Hejnar Robert	Konkrétní etuda (Concrete Etude), 1995
Hejnar Robert	Niobé, 1996
Hlaváč Miroslav	Logogenesis, 1968
Hlaváč Miroslav	Astroepos, 1969
Hlaváč Miroslav	Angelion, 1969
Hlaváč Miroslav	Biochronos, 1969
Hlaváč Miroslav	Chimérion, 1970
Hlaváč Miroslav	Metafonia, 1970
Hlaváč Miroslav	Fontana cantans, 1971
Hlaváč Miloslav	Concerto da camera per violino, 1972
Hlaváč Miloslav	Musica diaphonica pro bcl. and tape 1975
Hlaváč Miroslav	Nocturno u fontány, lyrický EA balet (Nocturne by Fountain, lyrical EA ballet), 1973
Hlaváč Miroslav	Atlantiana, balet, 1970
Hochel Stanislav	Pastorale, 1975
Horký Karel	Preludio metalicco, 1992
Horký Karel	Vzorkovaná hudba (Patterned Music), 1992
Horký Karel	Kosmopolitní hudba I (Cosmpolitin Music I), 1992
Horký Karel	Kreslená hudba (Animated Music), 1992
Horký Karel	Music party 91, EA balet, 1992
Horký Karel	Syntfonie, 1992
Horký Karel	Sedm mikrointervalových studií (Seven Microintervalic Studies), 1996
Horký Karel	Orbis Fictus, 1996
Horký Karel	Ekmelická hudba (Music Ecmelic), 1996
Horký Karel	Orfeo a Euridice, 1986
Horký Karel	Musica per Piazza del Campo, 1983
Horký Karel	Musica Ethnica 01/92, 1992
Horký Karel	Moravská meditace (Moravian Meditation), 1978
Horký Karel	Hudba pro E. Rubika (Music for E. R.), 1991
Horký Karel	Virtuální hudba 01/95 (Virtual Music), 1995
Horký Karel	Pro smyčce (For Strings), 1991
Hrisanide Alexandre	Cori, 1972
Ištván Miloslav	Ostrov hraček I–V (The Island of Toys), 1968
Ištván Miloslav	Caesar (scénická hudba), 1969
Ištván Miloslav	Avete morituri pro mgf. pás, 1970
Ištván Miloslav	Já Jákob, oratorium (Myself, Jacob), 1970
Ištván Miloslav	Smuténka (Sadness Song), 1970
Ištván Miloslav	Modravá země (Bluish Earth), 1982
Ištván Miloslav	Odbila hodina (The Clock Has Struck), 1979
Ištván Miloslav	Canto II, 1980

Ištván Radomír	Obrazy I, II (Images I, II), 1984
Jánošík Michal	Mongolský pastevec pojídající kobylky v dešti (A Mongolian Herdsman Eating Locuts in the Rain), 1995
Jiráčková Marta	Ukolébavka (Lullaby), 1978
Jiráčková Marta	Holubice (Dove), 1978
Jiráčková Marta	Lod' bláznů (A Ship of Fools), 1991
Jiráčková Marta	Výhledy z balkónu, EA suita (Views from a Balcony), 1991
Jiráčková Marta	Pětkrát žena (Five Times a Woman), 1992
Jiráčková Marta	Pura sub nocte, 1998
Jirásek Ivo	Sedmá pečeť (The Seven Seal), 1971
Jirásek Jan	Variace na rockové téma (The Variation to rock theme), 1989
Jirásek Jan	Labyrint, 1990
Jirásek Jan	Looking West pro el. nástroje, 1991
Jirásek Jan	Looking East pro el. nástroje, 1991
Jirásek Jan	Babylonská věž (Tower of Babylon), 1993
Jurišová Zlatica	Cesta lásky bez hranic (The Way of Love without Borders), 1995
Jurišová Zlatica	Mimozemšťané (Extraterrestrials), 1996
Kabeláč Miloslav	Hospodině pomiluj ny, 2. část suity (God, be merciful), 1971
Kabeláč Miloslav	Svatovítský chrám, 3. část (St. Vitus Cathedral), 1972
Kabeláč Miloslav	Pohřeb Karla IV, 4. část (Karl s IV. Funeral), 1972
Kabeláč Miloslav	Husitská Praha, 5. část (Hussite Prague), 1972
Kabeláč Miloslav	Kosmova kronika 1. část (Kosmas Chronicle), 1972
	Cyklu E fontibus bohemicis (Cycle E fontibus...)
Kabeláč Miloslav	Husova chvála Prahy, 6. část (Hus Glorify to Prague), 1972
Kabeláč Miloslav	E fontibus bohemicis, cycle, 1972
Kabeláč Miloslav	Svatovítský zvon (St. Vitus Bell), 1966
Kalčíč Josip	Improvizace (Improvisation), 1967
Kapr Jan	Cifre I, II, 1966
Kapr Jan	Šifry (Ciphers), 1967
Kašlík Václav	Krakatit (to Čapek), 1961
Katmeridu Afrodita	Pozorování 3 (Observation 3), 1991
Katmeridu Afrodita	Meditace (Meditation), 1996
Katmeridu Afrodita	Violiniada, I, II, 1998
Keprt Michael	Konkrétní etuda (Concrete Etude), 1995
Keprt Michael	Slyšeno ve větru (Heard in the Wind), 1996
Klán Petr	Ambient 1, 1991
Klán Petr	Topsyturvydom 1–3, 1991
Klán Petr	Dione, 1990
Klán Petr	Obrazy 1–4 (Images 1–4), 1990
Klán Petr	Moudrý Zang (Sage Zang), 1990
Klán Petr	Ambient 3, 1990
Klán Petr	Likvidátor (Liquidator), 1991
Klán Petr	Slůně I, II (Little Elephant), 1991
Klán Petr	Svítání (Daybreak), 1991
Klán Petr	Malý princ (Little Prince), 1991
Klán Petr	MUSAC, 1991
Klemens Adam	Videomima, 1994
Ključovský Ivan	Sedimentace paměti (Sedimentation of Memory), 1998
Klusák Jan	O sacrum convivium, 1968
Kofroň Petr	Pro varhany a bubny (For Organ and Drums), 1983
Kofroň Petr	Jednou za život (Once in a Lifetime), 1985
Kofroň Petr	Nejvyšší zvonění (The Supreme Ringing), 1986
Kofroň Petr	Selber, 1986
Kofroň Petr	Liber LXXII, 1987

Kofroň Petr	Trojice (Trinity), 1988
Kofroň Petr	N. A. C., 1988
Kofroň Petr	Canon missae, 1989
Kohoutek Ctirad	Panychida, 1968
Kollert Jiří	Guernica, 1975
Komorous Rudolf	Náhrobek Malevičův (Malevič Gravestone), 1965
Komorous Rudolf	Anatomie melancholie (Anatomy of Melancholy), 1966
Komorous Rudolf	Čtyři zvuková interludia (Four Sound Interludia), 1966
Kopecký Pavel	Reveberace (Reverberation), 1984
Kopecký Pavel	Reminiscence (Reminiscence), 1985
Kopecký Pavel	Jasná světla (Luci serene), 1987
Kopecký Pavel	Ritorni, 1989
Kopecký Pavel	Netrpělivý Orfeus (Impatient Orpheus), 1991
Kopecký Pavel	Via reggia (Královská cesta), 1990
Kopecký Pavel	Sonátová věta (Sonata s Movement), 1975
Kopecký Pavel	Syntéza 1, 2 (Synthesis), 1976
Kopecký Pavel (+)	Hudba k baletu (Music to Ballet), 1977
Kopecký Pavel	Syntéza pro klavír a mg. pás, 1977
Kopecký Pavel	Defilé, 1989
Kopecký Pavel	Ludi e canti, 1992
Kopecký Pavel	Zátiší s pierotem (A Still Life with Pierrot), 1993
Kopecký Pavel	Zátiší s harlekýnem (A Still Life with Harlequin), 1994
Kopecký Pavel	Fix focus, 1999
Kopelent Marek	3 skladby
Košut Michal	Kometa (Comet), 1994
Košut Michal	Mimikry, EAH k baletu, 1992
Košut Michal	Valérie, 1991
Košut Michal	Cesta Agaršským údolím (The Trip Through the Valley of Agara), 1997
Košut Michal	Etuda per Forrotronics, 1990
Košut Michal	Tři písně (Three Songs), 1994
Košut Michal	Ifigénie, 1996
Košut Michal	Syntheponia, 1994
Košut Michal	Concertino for Shakhucaci, 1998
Kotík Petr	Refraction, 1961
Kotík Petr	Wilsie Bridge, 1987
Koželuhová Jitka	Nebe (Sky), 1993
Krček Jaroslav	Koncert (Concert), 1978
Krček Jaroslav	Rozmluvy s časem (Talks with Time), 1990
Krček Jaroslav	Sonáty slavičkové (Nightingales Sonatas), 1969
Krček Jaroslav	Nevěstka Raab (Prostitute Raab), 1971
Krček Jaroslav	O světlo světa (O lux mundi), 1992
Kučera Václav	Studie pro konkrétní klavír (Studies for Concrete Piano), 1966
Kučera Václav	Pastorale, 1. část cyklu Kinetický balet (Ballet Kinetic), 1968
Kučera Václav	Spirála, 2. část cyklu (Spirale), 1968
Kučera Václav	Labyrint, 3. část cyklu, 1968
Kučera Václav	Invariant, 1969
Kučera Václav	Kinechromie, 1969
Kučera Václav	Lidice, 1972
Kučera Václav	Srdce a sen (Heart and Dream), 1973
Kučera Václav	Spartacus, 1976
Kučera Václav	Goghův autoportrét (Self-portret of Gogh), 1985
Kučera Přemysl	Kráska a zvíře (The Beauty and the Beast), 1985
Kuksa Emanuel	Hupolog č. 1, 1964
Kuksa Emanuel	Znělka k světovému kongresu (Sign to World Congress), 1965

Kupka Karel	Kontrasty (Contrasts), 1967
Kurz Ivan	Reverie, 1982
Kurz Ivan	Preludium, chorál a toccata, 1970
Kurz Ivan	Pět konkrétních etud (Five Concrete Etudes), 1974
Kurz Ivan	Túžby po spomienkách (Longing for Memories), 1979
Kurz Ivan	Scénická hudba ke hře Urfaust (Scenic music to Urfaust), 1976
Kurz Ivan	Elektronická suita (Electronic Suite), 1977
Lébl Vladimír	Sen a text (Dream and Text), 1966
Loudová Ivana (+)	Res humana, 1970
Loudová Ivana	Mobil K, 1970
Lukáš Zdeněk	Arcecona 68, 1968
Lukáš Zdeněk	Ecce quomodo moritur justus, 1969
Lukáš Zdeněk	Nezabiješ, oratorium (You Won't Kill), 1971
Lukáš Zdeněk	Vivat iuventus, 1972
Lukáš Zdeněk	Concerto grosso II, 1972
Machajdík Peter	Zastavit čas tisíckrát (Stop the Time a Thousand Time), 1990
Machajdík Peter	Sedm barev světla (Seven Colours of the Light), 1990
Malásek Petr	Střepy růže (Shards of a Rose), 1990
Málek Jan	Nocturno (Koláž č. 2), 1968
Málek Jan	Invence č. 1 "Horror Alenae", 1969
Málek Jan	Tři stádia (Three Stadia), 1972
Málek Jan	Invence č. 3. Dudácká (Bagpipe s Invention), 1974
Marek Martin	Matiné v královské zahradě (Matinee in the King Garden), 1995
Marek Josef	Etuda, 1995
Marek Martin	Kůl v plotě (Quite Alone), 1996
Matějů Zbyněk	Fobie (Fobbing), 1982
Matějů Zbyněk	Ctnosti a neřesti (Virtues and Vices), 1986
Matějů Zdeněk	Dynamit, 1989
Matoušek Lukáš	Studie I, 1968
Matoušek Lukáš	Studie II, 1969
Matoušek Vlastislav	Hlasy šesti stěn (Voices of Six Walls), 1991
Matoušek Vlastislav	Návrat (Return), 1991
Matoušek Vlastislav	Stoosm vln větru (Hundred and Eight Waves of the Wind), 1992
Matoušek Vlastislav	Široká stezka pro elektroniku (A Broad Path), 1991
Matoušek Vlastislav	Bez návratu (Without Return), 1992
Matoušek Vlastislav	Praha 93, 1993
Matoušek Vlastislav	Trigramy (Trigrammes), 1993
Matoušek Vlastislav	Tvary ticha (Shapes of Silence), 1993
Matoušek Vlastislav	Discovery, 1995
Matoušek Vlastislav	Kniha pěti kruhů (Book of Five Circles), 1997
Matoušek Vlastislav	Anacolutnes, 1996
Matoušek Vlastislav	Pět minut před (Five Minutes before), 1992
Matoušek Vlastislav	Ze střechy světa (From the Roof of the World), 1993
Matoušek Vlastislav	9 x 1 = 1, 1998
Medek Ivo	Rozpomínání (Recollection), 1989
Medek Ivo	Hypertenze pro dva syntetizéry (Hypertensis for two synth.), 1991
Medek Ivo	Krajiny s pietou (Landscape with Piety), 1992
Medek Ivo	Tamtamania, 1993
Medek Ivo	Adam a Eva (Adam and Eve), 1994
Medek Ivo	Uplývání (Elapsing), 1991
Medek Ivo	Zlomený kříž (Broken Cross), 1990
Medek Ivo	Temporis motio pro sólo bicí (...for perc.), 1993
Medek Ivo	Postludio, 1994
Medek Ivo	Adledaivan pro bicí a mgf. pás (for perc. and tape), 1988

Medek Ivo	Abondárium, 1996
Mikolášek Bohdan	Křížení (Crossing), 1999
Mikolášek Bohdan	Matrix Dreams, 1990
Mikolášek Bohdan	Porcelánová hudba (Porcelain Music), 1991
Mojžíš Vojtěch	Žalm (Psalm), 1992
Mojžíš Vojtěch	Artprotis, 1979
Mojžíš Vojtěch	Elektronické studie (Electronic Studies), 1973
Mojžíš Vojtěch	Pravda o muži, EA melodram (Truth about the Man), 1972
Mojžíš Vojtěch	Carmina Moravica II, 1981
Mojžíš Vojtěch	Faethon a Ikaros (F. and I.), 1974
Mojžíš Vojtěch	Operace (Operation), 1979
Němec Martin	Responsorio mortifera, 1992
Novák Roman Z.	Studie (Study), 1995
Novák Roman Z.	Smuteční hudba pro nedělní odpoledne (Funeral Music for Sunday Afternoon), 1994
Novák Ladislav	Prostory našich životů (Spaces of Our Lives), 1966
Novák Ladislav	Na konci není sněh (There is No Snow in the End), 1966
Novák Ladislav	Korespondence pro mgf. pás (Correspondence for tape), 1962
Novák Ladislav	Cizí společnost (A Strange Society), 1963
Novák Ladislav	Geologie, aneb jak jsme zabíjeli tatínka (Geology, Also How we Killed Our Dad), 1963
Novák Ladislav	Dialogus, 1964
Novák Ladislav	Znění pro Pierre Goniera (Sounding for P. G.), 1964
Novák Ladislav	Aleatorická láska (Aleatoric Love), 1964
Novák Ladislav	Gute Nacht, 1964
Novák Ladislav	Ceterum au, 1964
Odstrčil Karel	Konflikt 42 (Conflict 42), 1967
Odstrčil Karel	Einstein, 1. část cyklu Kabinet voskových figur (Cabinet of Waxwork Figures), 1968
Odstrčil Karel	Dr. Sorge, 2. část cyklu, 1968
Odstrčil Karel	Mme Curie, 3. část cyklu, 1968
Odstrčil Karel	Kafka, 4. část cyklu, 1969
Odstrčil Karel	Toccata II, 1969
Odstrčil Karel	Gandhí, 5. část cyklu, 1969
Odstrčil Karel	Fiction, 1970
Odstrčil Karel	Hemingway, 7. část cyklu, 1970
Odstrčil Karel	Louis, 8. část cyklu, 1971
Odstrčil Karel	Amundsen, 6. část cyklu, 1971
Odstrčil Karel	Fiction II, 1974
Odstrčil Karel	Hledání živé vody. EA sonáta (Searching for Quick Water), 1983
Odstrčil Karel	Gagarin, 9. část cyklu, 1987
Odstrčil Karel	Agatha Christie, 10. část cyklu, 1989
Odstrčil Karel	Noc v Kabinetu voskových figur (Night in the Cabinet of Waxwork Figures), 1993
Odstrčil Karel	Tarsanova smrt (Death of Tarsan), 1990
Odstrčil Karel	Integrace (Integration), 1972
Odstrčil Karel	Futurum. Pět etap (Five Stages), 1996
Odstrčil Karel	Den v Kabinetu voskových figur (Day in a Cabinet of Waxwork Figures), 1995
Odstrčil Karel	Hledání živé vody (Searching for Quick Water) 2. version, 1986
Odstrčil Karel	Vox humana, 1991
Odstrčil Karel	Nápadníci (Wooers), 1984
Odstrčil Karel	Průlet vesmírných částic (Passage Flight of Space Elements), 1987
Parsch Arnošt	Transposizioni II, 1969
Parsch Arnošt	Prologos, 1. část Bludiště (Labyrinth), 1971
Parsch Arnošt	Labyrinthos, (2. část Bludiště), 1971
Parsch Arnošt	Polyfonie č. 2 (Polyphony), 1972
Parsch Arnošt	Ve Vysokých Tatrách (In Vysoké Tatry), 1972

Parsch Arnošt	Nocturno (Polyfonie III), 1976
Parsch Arnošt	Rozednívání (Daybreaking), 1982
Parsch Arnošt	Proměny času (Changes of Time), 1989
Parsch Arnošt	Poetica č. 3, 1967
Parsch Arnošt	Sonáta, 1967
Parsch Arnošt	Samsarah, 1967
Parsch Arnošt	Didaktika č. 1, 1969
Parsch Arnošt	Josefu Horákovi (Dedication to J. H.), 1969
Parsch Arnošt	Polyfonie č. 1, 1970
Parsch Arnošt	Rotae rotarum, 1970
Parsch Arnošt (+)	Nejen o slepicích (Not Only on Hens), 1970
Parsch Arnošt (+)	Hudba k výstavě vltavínů (Music to Exposition of Vltavins), 1970
Parsch Arnošt (+)	Kuře krákoře (Chick Pips), 1970
Parsch Arnošt (+)	Viva Che Gevara, 1972
Pazour Jiří	Noční můra (Nightmare), 1995
Petrašovská Mária	Strašidlo canterwilské (The Ghost of Canterville), 1975
Petrašovská Mária	Pulzácie (Pulsations), 1976
Piños Alois	Korespondence (Correspondence), 1971
Piños Alois	Nekonečná melodie pro mg. pás (Infinite Melody for Tape), 1973
Piños Alois	Tance (Dances), 2 variants, 1975
Piños Alois	Kontrapunkty přírody, 1. část (Contrapuncts of Nature) 1978
Piños Alois	Kontrapunkty přírody, 2. část, 1978
Piños Alois	Kontrapunkty přírody, 3. část, 1978
Piños Alois	Kantiléna, 1984
Piños Alois	Koncert pro orchestr a mg. pás (Concert for Orchestra and Tape), 1966
Piños Alois (+)	Ecce homo, 1969
Piños Alois (+)	Peripetie pro orchestr a mgf. (Peripethy for Orchestra and Tape), 1969
Piños Alois	Statická hudba pro mg. pás (Static Music for Tape), 1970
Piños Alois	Vyvolávači, scénická produkce (Call-up Man), 1970
Piños Alois (+)	Mlčení ptáček v lese (Reticence of Birds in the Wood), 1970
Piños Alois (+)	Capriccio, 1974
Piños Alois	Hudba pro dva (Music for Two), 1971
Piños Alois	Domov aneb Dům č. p. 3426 (Home, also House N. 3426), 1973
Piños Alois	Ludus floralis, 1966
Piños Alois	Paradoxy II (Paradoxs), 1966
Piños Alois	Advent, 1991
Piños Alois	Mříže (Grills), 1991
Piños Alois	Geneze (Genesis), 1991
Piños Alois	Konfluence (Confluence), 1974
Piños Alois	Adorace (Adoration), 1972
Piños Alois	Speleofonie (Speleophony), 1976
Piños Alois	Eufonie IV (Euphony), 1995
Piños Mikuláš	Idée fixe de Bach, 1995
Piños Mikuláš	Prázdninová vzpomínka č. 2 (Memory to Holidays), 1997
Piños Alois	Pantha rei. Triptych: Antifona, 1985
Piños Alois	Lux in tenebris, 1990
Pokorný Jaroslav	Káma pro velký orchestr (Kama for Big Orchestra) 1979
Pokorný Jaroslav (+)	Variace na téma LaMonte Younga (Variation on the theme of...), 1996
Pokorný Jaroslav (+)	Nebe i země pominou (Sky and Earth Will Pass), 1997
Pokorný Jaroslav (+)	MOENS aneb „Dvořákův problém“ (Problem of Dvořák), 1998
Pokorný Jaroslav (+)	Zahrada Orfeova (Garden of Orpheus), 1992
Pololánik Zdeněk	Čtyři zvukové konverzace (Four Sound Conversations), 1965
Pololánik Zdeněk	Královské vraždění (Royal Murders), 1967
Pololánik Zdeněk	Hamlet, 1967

Pololánik Zdeněk	Oratio, 1969
Pudlák Miroslav	Dejte mi pevný bod (Give Me a Firm Point), 1992
Rejšek Radek	Ofélie, EA fantazie, 1990
Rejšek Radek	Roráty (Rorate), 1992
Rejšek Radek	Carmen campanarum, 1991
Rejšek Radek	Stomatologická minirapsodie (Stomatological Minirapsody), 1994
Rožek Oliver	Maxwellův démon (Maxwell s Demon), 1969
Rusko Vlado (+)	Symboly mužské a ženské (Femal and Male Symbols), 1998
Rusko Vlado (+)	Růžové ticho (Pink Silence), 1998
Růžička Rudolf	Timbry, 1968
Růžička Rudolf	Gurges, 1969
Růžička Rudolf	Discordia, 1971
Růžička Rudolf	Concertino pro harfu (for arp.), 1974
Růžička Rudolf	Malefica, 1978
Růžička Rudolf	Tibia, 1979
Růžička Rudolf	Arcanum (Tajemství), 1984
Růžička Rudolf	Rota, 1987
Růžička Rudolf	Suita 6 (Suite 6), 1989
Růžička Rudolf	Elektronia A, 1965
Růžička Rudolf	Elektronia pro J. Horáka (for J. H.), 1965
Růžička Rudolf	Elektronia B, 1965
Růžička Rudolf	Elektronia C, 1966
Růžička Rudolf	Deliciae pro cb. a mgf. pás (for Cb. and Tape), 1969
Růžička Rudolf	Aforismy (Aforismes), 1970
Růžička Rudolf	Stvoření světa (Creation of the World), 1970
Růžička Rudolf	Anthroporea, 1970
Růžička Rudolf	Mavors, 1971
Růžička Rudolf	Cantata ai ai ai, 1971
Růžička Rudolf	Paen, 1977
Růžička Rudolf	Symfonie pro 2 orchestry
Růžička Rudolf	Parabola, 1990
Růžička Rudolf	Bucina, 1991
Růžička Rudolf	Rosa sepulcreti, 1992
Růžička Rudolf	Celula, 1991
Růžička Rudolf	Komorní koncert č. 3 (Chamber Concert N. 3), 1996
Růžička Rudolf	Crucifixion I, 1992
Růžička Rudolf	Suita 9 pro housle a EA zvuky (Suite for Vli and EA Sounds), 1993
Růžička Rudolf	Posonensia, 1996
Růžička Rudolf	Saxophantasy, 1994
Růžička Rudolf	Creation II, 1994
Růžička Rudolf	Aves, 1994
Řehoř Bohuslav	Modlitba kamene (Praise of Stone), 1970
Řehoř Bohuslav	Preludium a pastorale, 1973
Řezníček Petr	U muziky (By Music), 1973
Saidlová Jolana	Začarovaný les (Conjured Wood), 1994
Salbert Dieter	Konstellationen, 1969
Samlík Petr	Mešní hudba (Mass Music), 1997
Samlík Petr	Otloučené ticho každodenní ryby (Knocked-off Silence of an Everyday Fish), 1998
Samlík Petr	Liturgie zvonů třináctého léta (Liturgy of Bells of the Thirteenth Summer), 1995
Samlík Petr	Žitá hlína (Lived Earth), 1997
Samlík Petr	Pokoušení na poušti (Temptation in the Desert), 1996
Simon Ladislav	Antitéze, 1966
Simon Ladislav	Dimenze (Dimension), 1964
Simon Ladislav	Tři studie (Three Studies), 1965

Simon Ladislav	Missa non sacra, 1967
Simon Ladislav	Antithese, 1965
Slavický Milan	Chvála cembala (Praise to Cembalo), 1977
Slavický Milan	Prosvětlení V. Pražský podzim (Transillumination), 1990
Slavický Milan	Advent – EA kontemplace, 1992
Slavický Milan	Variace na laserový paprsek (Variation on Laser), 1985
Slavický Milan	Contrapunctus I, 1992
Slezák Pavel	Symfonie padlým s mg. pásem (Syphony for Dead), 1971
Slimáček Jan	Prolog, 1979
Smejkalová Sylva	Člověk objekt (Object-Man), 1997
Smejkalová Sylva	Zdi V. H., tři recitativy (Walls), 1995
Smolka Martin	For Woody Allen, 1992
Spáčil Eduard	Hledání světla (Seerching for the Light), 1985
Spáčil Eduard	Poéma, 1987
Spáčil Eduard	Krok k extázi (Step to the Extase), 1989
Spáčil Eduard	Hudebník ze St. Merry (Musician from St. Merry), 1989
Spáčil Eduard	Hudba pro Plzeň (Music for Pilsen), 1994
Spáčil Eduard	Suita Dg. 304, 1991
Spáčil Eduard	Varující trosky (Warning Ruins), 1985
Spáčil Eduard	Hry (Games), 1990
Spáčil Eduard	Chorální fantazie (Choral Phantasy), 1990
Šrámek Vladimír	Smích, k textu J. Koláře (Laughter), 1962
Šrámek Vladimír	Metamorfózy VI (Metamorphoses), 1963
Šrámek Vladimír	Sonet pro Sonet duo (Sonnet for Sonnet duo), 1966
Štědroň Miloš	Bis, 1971
Štědroň Miloš	Troubení z věže (Hooting from the Tower), 1973
Štědroň Miloš	Utis (Nikdo), 1966
Štědroň Miloš	Panychida. Památce B. Pasternaka (Panychide for Memory on B. P.), 1968
Štědroň Miloš	O sancta Cecilia, 1969
Štědroň Miloš	Aparát, komorní opera (Machinery, Opera), 1970
Štědroň Miloš	Seconda prattica, 1991
Tandler Josef	Scéna (Scene), 1977
Tichavský Radko	Scénická hudba (Scenic Music), 1977
Tichavský Radko	Tři podobenství (Three Parables), 1977
Tichavský Radko	Meditace na Moliera (Meditation on Molière), 1977
Tokarzová Irena	Etuda (Etude), 1995
Trnka Michal	Nábytek, dobytek, obyčej (furniture, Cattle, Custom), 1997
Trnka Michal	Člověk objekt (Object-Man), 1997
Valoch Jiří	Proměna (Transformation), 1968
Valoch Jiří	Aus jedem Satz, 1969
Valoch Jiří	Modulace (Modulation), 1969
Vanša Vlastimil	Zimní krajina (Winter s Landscape), 1976
Vavřín Petr	Algoritmy (Algorithms), 1972
Vavřín Petr	Concrete elektronik, 1973
Viklický Emil (+)	Confluence I. – IX. (Confluations), 1985
Viklický Emil	Dřevěná hudba (Wood Music), 1990
Viklický Emil	Spleen optimismu (Spleen of Optimism), 1991
Viklický Emil (+)	View of Point I. – IV., 1991
Viklický Emil (+)	Urbanology I–IX, 1991
Viklický Emil	Adaemus, 1991
Viklický Emil	Ignác v koridoru (Ignaz in Corridor), 1993
Viklický Emil	Zmítán vášněmi (Tossed about with Passions), 1994
Viklický Emil	Afrika (Africa), 1994
Viklický Emil	Ignác hraje (Ignaz Go to Play), 1995

Viklický Emil	Rajská zahrada (Paradise Garden), 1996
Viklický Emil	Dobrodružství Ignáce P. (Adventures of I. P.), 1996
Vostřák Zbyněk	Sedm prahů (Seven Thresholds), 1970
Vostřák Zbyněk	Síto ticha (Sieve of Silence), 1971
Vostřák Zbyněk	Concomitances, 1971
Vostřák Zbyněk	Proměna II (Transformation II), 1974
Vostřák Zbyněk	Chemické sňatky, 2. část cyklu (Chemical Marriages), 1972
Vostřák Zbyněk	Zlatá mříž, 3. část (Gold Grill), 1972
Vostřák Zbyněk	Dvě ohniska, 1. část cyklu Azot (Two Foci 1. part from Cycle Azot), 1969
Vostřák Zbyněk	Oběť svíce (Sacrifice of Candle), 1974
Vostřák Zbyněk	Telepatie, 1970
Vostřák Zbyněk	Váhy světla (Wightiness of Light), 1967
Vostřák Zbyněk	Jedno ve všem (One in All), 1973
Vostřák Zbyněk	Proměna I (Transformation I), 1972
Vostřák Zbyněk	Něžné pásky, které zavazují (Pied Piper of Hemline), 1977
Vrána Jan	Sen (Dream), 1971
Vrkoč Jan	Podzimní romance (Autumn Romance), 1993
Werner Vladimír	Studie (Study), 1973
Wimmer Vladimír	Hirošima, 1994
Wolf Jaroslav	Isochronos, 1972
Wolf Jaroslav	Ataraxeia, 1973
Wolf Jaroslav	Configurazioni I, II, V, 1966
Zabelka Mia	Venuše (Venus), 1991
Zajíček Libor	Basová etuda (Bass Etude), 1997
Zouhar Vít	Widexcrossing, 1994
Žilka Štěpán	Krysař (Rat-Catcher), 1977

ELEKTROAKUSTISCHE MUSIK IN DER TSCHECHISCHEN REPUBLIK

Zusammenfassung

Die Studie ist eine verkürzte Version eines Teiles der Dissertationsarbeit der Autorin mit dem Titel „Ästhetische Modelle der europäischen elektroakustischen Musik und elektroakustische Musik in der Tschechischen Republik“ (1998). In dem Einführungsteil beschäftigt sie sich kurz mit der Problematik der Definition und Typologie der elektroakustischen Musik (im weiteren nur EAM). EAM ist als eine Musikart bestimmt, deren Kern diejenige Musik bildet, in der der elektronisch verarbeitete Ton (generiert oder geregelt) einen unteilbaren Bestandteil des sogenannten semantischen Geste der Komposition bildet. Die Autorin erklärt verschiedene typologische Sichtweisen (technologische, ästhetische, axiologische usw.) und den Charakter von verschiedenen Übergangszonen (Terminologie von J. Volek). Sie macht auf die Notwendigkeit des differenzierten und multikriteriellen Ansatzes aufmerksam. Die Studie konzentriert sich auf die sogenannte künstlerische und autonome Musik (selbstverständlich in einer nicht scharfen Abgrenzung) in der Tschechischen Republik, und zwar vor allem auf Grund der Tatsache, dass der Stoff quantitativ zu umfangreich ist. Ein selbstständiges Kapitel ist der Problematik der tschechischen

Quellen und Literatur und den Problemen hinsichtlich der Beschreibung von spezifischen Quellen der AEM gewidmet (Frage des Entstehens der Komposition, ihrer Dauer, usw.).

Als eigenständiger Problembereich werden hier besondere historische, politische, und kulturelle Bedingungen des Bestehens der EAM in der ehemaligen Tschechoslowakei, später in der Tschechischen Republik, behandelt. Dieses Musikgenre nahm in der Zeit des Sozialismus eine ambivalente axiologische Stellung ein, die aus der Affinität der soziologischen Ideologie zum Modernismus folgte. Einerseits gehörte die Entwicklung von Technologien zu den Prestigebereichen der Demonstration der politischen Macht, andererseits spielte die EAM in der ehemaligen Tschechoslowakei die auch für sie nicht ganz typische Rolle des kulturellen Undergrounds. In die quantitative Entwicklung der Produktion der EAM griff allerdings nicht nur die politische Entwicklung ein (durch die Verdrängung der Unterstützung und Verbreitung der EAM in den 70er und 80er Jahren, durch das Hervorrufen einer besonderen Thematik und Poetik der Kompositionen), sondern auch die Entwicklung der Technologie selbst und der Rücktritt des modernistischen Denkens in der ganzen euro-amerikanischen Kultur in den 70er Jahren. Die Anwendung der neuen technologischen Medien erfolgte insbesondere von den 80er Jahren an was den Gehalt betrifft symptomlos und die sich dynamisch entwickelnde Pop-Music gewann ihre Positionen in dem Schaffen, sowie in der Perzeption unter anderem auch dank guter Bedingungen in Studios. Demgegenüber hat sich die Ausstattung der staatlichen Studios nicht weiterentwickelt und diese verloren für Musikstudenten ihre Attraktivität. Die sogenannte ernste elektroakustische Musik wurde nach dem Jahre 1989 zu einer Minoritätsgattung der Musik. Nicht nur die technologische, sondern auch die semantische Orientierung der Musik hat sich geändert.

Im Abschluss der Studie wird ein Gesamtüberblick der Produktion der autonomen künstlerischen elektroakustischen Musik im Umfang von ca. 480 Kompositionen dargestellt. Diese Übersicht ist eine verkürzte Version der Datenbasis der elektroakustischen Musik, die ein Bestandteil der Dissertation ist.

ELEKTROAKUSTICKÁ HUDBA V ČESKÉ REPUBLICE

Shrnutí

Studie je krácenou verzí části autorčiny disertační práce *Estetické modely evropské elektroakustické hudby a elektroakustická v ČR* (1998). V úvodní části se stručně věnuje definiční a typologické problematice elektroakustické hudby (dále EAH). EAH je vymezena jako hudební druh, jehož jádro tvoří hudba, v níž elektronicky zpracovaný (generovaný či upravovaný) zvuk tvoří nedílnou součást tzv. sémantického gesta, kompozice. Autorka vysvětluje různá typologická hlediska (technolo-

gické, estetické, axiologické ad.), charakter tzv. přechodových pásem (v terminologii J. Volka). Upozorňuje na nutnost diferencovaného a multikriteriálního přístupu. Studie se soustřeďuje na hudbu tzv. uměleckou a autonomní (samozřejmě v neostrém vymezení) v ČR, a to především z důvodu velkého kvantitativního rozsahu látky. Samostatná kapitola je věnována problematice českých pramenů a literatury, problematice deskripce specifických pramenů EAH (otázka vzniku kompozic, trvání apod.).

Svébytnou problematikou jsou zvláštní historické, politické a kulturní podmínky existence EAH v bývalém Československu, později v ČR. Tento hudební druh zaujímal v období socialismu ambivalentní axiologické postavení vyplývající z afinity sociologické ideologie k modernismu. Na jedné straně patřil vývoj technologií k prestižním oblastem demonstrace politické moci, na straně druhé sehrála EAH v bývalém Československu mj. i sobě ne zcela vlastní úlohu kulturního undergroundu. Do kvantitativního vývoje produkce EAH zasáhl ovšem nejen politický vývoj (potlačením propagace a šíření EAH v 70. a 80. letech, vyvoláním zvláštní tematiky a poetiky skladeb), ale také vývoj technologie samotné a ústup modernistického myšlení v celé euroamerické kultuře v 70. letech. Využití nových technologických medií se stalo zejména od 80. let hodnotově bezpříznakové, dynamicky se vyvíjející pop music získávala pozice v tvorbě i percepci mj. i díky dobře vybavenému studiovému zázemí. Státní studia oproti tomu ve vybavenosti zaostala a stala se tak pro studenty hudby neatraktivními. EA tzv. vážná hudba je po r. 1989 výrazně menšinovým druhem. Proměnila se nejen technologická, ale také sémantická orientace této hudby.

Celkový přehled produkce autonomní umělecké EAH v rozsahu cca 480 skladeb podává závěr studie. Přehled je krácenou verzí databáze EAH, která je součástí disertace.