

C H R O N I C L E

The 38th Open Seminar on Acoustics OSA'91 was held in Kiekrz n. Poznań on September 17th-20th 1991. The seminar was organized jointly by the Institute of Acoustics Adam Mickiewicz University, the Poznań Branch of the Polish Acoustical Society, the TONSIL Loudspeaker Factory in Września, and the Institute of Fundamental Problems of Technology at the Polish Academy of Sciences. The seminar attracted 110 participants, including 7 foreign guests. 86 papers were read on nearly all field of acoustics, i.e. acoustics of speech and music, psychoacoustics, electroacoustics, medical acoustics, environmental acoustics, solid body acoustics and molecular acoustics.

Participants of the seminar took part in a round table discussion on the latest trends in noise monitoring and measurement.

U. Jorasz

**4th Symposium on Sound Engineering and Mastering
Gdańsk, 17-19 June, 1991**

Six years ago, the participants of the 1th Sound Engineering Symposium in Gdańsk decided to organize similar symposia biannually. Consequently, in 1987, the Chopin's Academy of Music in Warsaw entertained the 2nd one, while in 1989, the Institute of Mechanics and Vibroacoustics of the Technical University of Mining and Metallurgy in Cracow played host to the 3rd one. Now, again in Gdańsk, the 4th Symposium closed a first periodic round of those useful meetings of musicians and engineers working on mutual interdisciplinary problems.

The debates of the 4th Symposium, held under the Patronage of the Rector of the Technical University of Gdańsk, took place there in the auditoria of the Shipbuilding Institute. The total number of presentations was 35, i.e. an introductory lecture, 23 contributed papers, and 11 laboratory demonstrations presented within a session "Practicum". The 23 papers and 10 communications have been published in the Symposium Proceedings edited and printed, partly in Polish, partly in English, by the TUG Sound Engineering Department and distributed among the participants prior to the debates. The total number of registrated participants was 90, including 3 guests from abroad; more unregistrated persons attended particular presentations, mainly during the Practicum session.

On the second day of Symposium, a special session was devoted to foundation and inauguration of activity of the Polish Section of the Audio Engineering Society. This initiative of the organizers was welcome by the participants, which results in a formal Organizatory Meeting of the Polish AES Section (see separate report).

The second day afternoon, participants were brought by bus to visit the Old City of Gdańsk, and, in particular, to see an interesting exposition of the newly opened Maritime Museum, situated within three mediaeval harbour granaries, recently rebuild beautifully after the total war destruction.

The final session completed the Symposium with a general fruitful discussion; among other conclusions the participants demanded a broadening of the didactic activities of the TUG Sound Engineering

Department in order to allow students from other universities of the Gdańsk to study that interdisciplinary important and useful domain.

Participation fee, as well as, accommodation and boarding costs for the participants could be calculated very cheap in comparison to the current prices, thanks to a grant obtained from the Ministry of Education, and to the sponsoring aid of the TUG Rector. Organizers acknowledge it with gratitude, and express thanks for that help on behalf of all Symposium participants.

Chairman of the Organisation Committee
Doc dr inż. Marianna Sankiewicz

The Polish Section of the Audio Engineering Society Organizatory Meeting in Gdańsk – 18. 6. 1991

The meeting was convoked on the second day of the Fourth Symposium on Sound Engineering and Mastering, held in Gdańsk. It was an initiative of the Symposium organizers, among which were four previously active AES members, who prepared the meeting having entered in direct contact with AES Europe Region Board.

The meeting started at noon, in the Auditorium of Ocean-technique Building at Gdańsk Technica. University. 69 persons participated in the meeting, among them Mr T. SHELTON, AES Vice-President (Europe Region). Debates were presided by DSc. A. CZYZEWSKI (Gdańsk) and Prof. M. ROLAND-MIESZKOWSKI (Halifax), both AES members.

An introduction in the aims of the meeting was given by A. CZYZEWSKI. Then, T. SHELTON informed about AES activities, as well as, about main Society laws, members duties and privileges. He presented also organisatory requirements concerning foundation of a new AES Section and the Polish Section in particular.

As all participants accepted the conditions and expressed their willingness to enter the Audio Engineering Society, so elections of the Polish Section Board became possible. The electoral part of the meeting was presided by M. ROLAND-CIESZKOWSKI, who asked for candidatures to the post of the Section Chairman. Four candidates were proposed by the participants. After secret voting and scrutiny Mrs. M. SANKIEWICZ has been elected as Chairman of the new founded Polish Section of the AES. She thanked the participants for their confidence and then she presented her proposal for a composition of the Section Board, adequate to the cope with hard organizatory tasks due to the initial period of activity. Her proposal having been accepted unanimously, the following colleagues have been elected by acclamation:

A. CZYZEWSKI (Gdańsk) – as Secretary, B. KOSTEK (Gdańsk) – as Treasurer, A. BRZOSKA (Warszawa), A. MIŚKIEWICZ (Warszawa), K. RUDNO-RUDZIŃSKI (Wrocław), J. ADAMCZYK (Kraków), E. HOJAN (Poznań), A. ŚLIWIŃSKI (Gdańsk), G. BUDZYŃSKI (Gdańsk) – as Members.

T. SHELTON congratulated the elected colleagues and wished them many organizatory successes. He expressed hope to meet Polish colleagues soon at the opportunity of the 92nd AES Convention in Vienna. He told also that the AES President R. K. FURNESS who intended to come for this meeting, yet could not participate, will visit Polish Section at first opportunity.

M. ROLAND-CIESZKOWSKI thanked all participants for the fruitful result of the meeting. He expressed special gratitude for T. SHELTON for coming to Gdańsk and his active support to the initiators. Thus, thanks to cooperation of many people interested in audio engineering development in Poland, the Polish Section of AES as the first among the countries of the former East-European bloc has been called into existence.

Alphabetic list of the Polish AES Section founders:

J. Adamczyk, A. Brzoska, G. Budzyński, J. Cichmiński, H. Ciołkosz-Łupinowa, K. Cisowski, M. Czabajski, A. Czyżewski, A. Dobrucki, A. Dyro, M. Fengler, A. Gotaś, J. Gudel, E. Hojan, B. Iwanicka, M. Iwanowski, B. Janta-Połczyński, M. Kamińska, W. Kapczyński, W. Kasiński, P. Kleczkowski, B. Kostek, Z. Krawczyk, W. Kucharski, B. Kulesza, B. Libura, W. Makowski, M. Markuszewicz, S. Moroz, P. Mróz, B. Okoń-Makowska, T. Osieński, K. Pawlak, T. Pietrzykowski, P. Podgórski, J. Regent, A. Rehman, K. Rudno-Rudziński, D. Ruser, W. Rvszczowski, M. Sankiewicz, Z. Sobieszkański, C. Suproń, K. Szlifirski, M.

Szydłowski, M. Szyszkiewicz, A. Śliwiński, K. Środecki, A. Świdorski, M. Tajchert, J. Targoński, A. Tarka, Z. Wagner, K. Walczak, M. Waraksa, J. Waśniewski, Z. Wąsowicz, Z. Weyna, J. Wierzbicki, A. Witkowski, K. Wojtowicz, N. Wołk-Łaniewski, R. Wozniak, Z. Zając, W. Zająkała, S. Zieliński, B. Żółtogórski.

Chairman of the Polish AES Section
Doc dr inż *Marianna Sankiewicz*

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92nd AES CONVENTION – 24–27. 03. 1992 – VIENNA

Polish AES Section Report

The Audio Engineering Society spring convention is the most important European event in the field of sound engineering and of related domains. For the first time in the history of the AES, Vienna was site of the Convention, continuing the tradition of former AES Convention sites: London, Hamburg, Montreux, Paris. In the opinion of the AES President, Mr. Roger FURNESS, a major factor in choosing Vienna for the 92nd Convention was the proximity of this city to eastern European countries. The idea which led to that choice was to bring East and West together. The decision was undertaken long before the Berlin Wall came down. Vienna was expected to be the first real opportunity for audio-engineers of the West to come together with those of the former Eastern Bloc. Exchange of information, mutual discussions and new contacts built-up in Vienna should contribute to further development and progress in the domain of audio-engineering.

The 92nd Convention was held in the modern Austria Center, Vienna, located on the left bank of the Danube, in the middle of a large island between Old Danube and New Danube rivers. The Center has a capacity for up to 9500 participants, and its fourteen large halls and auditoria are arranged with the greatest possible versatility and equipped with most advanced convention technology, including sophisticated applicance for film and video projections. Every hall has four or more booths for simultaneous translations, aided by an infrared transmission system. There are spacious exhibitions areas equipped with removable partition walls, with adjacent offices, foyers, buffets, restaurants etc.

The Center location is very convenient from a transport point of view. It is only eight minutes away from the Vienna downtown by subway, while a highway links it directly with a road network. There is a built-in car-parking facility for 1200 cars.

On the day of the Convention opening ceremony the impressive main entrance to the Austria-Center was decorated with flags of all countries whose Sections belong to the AES.

For the first time the Polish flag was there among the 24 one, as the Polish Section was founded in 1991, already after the previous European Convention. The opening ceremony took place in the Entrance Hall on Tuesday, March 24, at 9³⁰ a.m. During the ceremony an AES Fanfare was performed for the first time, composed for this occasion by the Austrian composer Rene Clemencic. The President of the AES Mr. Roger FURNESS and the Convention Chairman Mr. Ewald KERSCHBAUM opened the Convention. The program contained debates divided into 26 sessions, which, during three and half days of Convention, ran in three or sometime four parallel sections, and into three workshops, as well as, two seminar sessions.

The total number of contributed papers was 138. Authors' index contained 202 names. Those figures exceeded in about 50% the average number of the papers submitted to previous European AES Conventions. The contributions concerned almost all branches of audio-engineering: Music & Musical Acoustics; Architectural Acoustic; Audio History Presentation & Restoration; Computer Aided Audio Production; Digital Recording & Reproduction; Measurement Techniques & Instrumentation; Psychoacoustics; Digital Signal Processing; Sound Reinforcement; Additional & Special Topics; Transducers; New Techniques in Transmission. Workshops were devoted to problems of Re-Recording with optical Pick-Ups, of Tape Life – Tape

Care, and of Wireless Microphones. One seminar was on New Audio Media, while another one on the Sound of the Orchestra. That seminar consisted of an interesting lecture given by Prof. Jurgen MEYER, from PTB Braunschweig, followed by a short concert performed by the symphonic orchestra of the Technical University, Vienna, conducted partly by Prof. MEYER presenting examples to illustrate his lecture, and partly by the regular conductor Ottokar PROCHÁZKA, who ravished the audience with a typical Vienna music: Strauss' "An der schönen blauen Donau".

The AES Preprints containing texts of the contributed papers were available on the Convention opening. However, for the first time their price was not included into Convention fee.

Parallel to sessions devoted to papers presentations and discussions, exhibition activities ran in a huge area divided into stands and booths of various audio-industry enterprises, disc-producers, recording dealers, sound and vision studio technique companies, etc. Above 245 companies exhibited their most advanced products, giving opportunity to visitors to get familiar with the newest systems and techniques on the field of audio-engineering and related topics. It is impossible to report here the richness of exhibition and possibilities offered to customers. E. g. big mixing consoles automated with sophisticated computer systems including tape machines and other control room equipment were accessible to everyone who wanted to check their functioning. Technical information, publications, data, prospects, etc., were disseminated richly among interested guests. Special issues were edited daily containing actual information on subsequent Convention days. It may be added as a curiosity that only two companies from the former socialist countries were present: Czechoslovak "Tesla" from Bratislava exhibited mixing consoles, while Russian "Kunstkamera" represented a new private owned recording studio in Moscow.

Participation of Polish acousticians and sound-engineers was for the first time in the AES Conventions history so numerous: 30 members and 2 student-members were present. This was possible not only due to the proximity of Convention site but also thanks to favourable fee payment conditions offered to Polish participants. Those conditions were in advance agreed by the Polish Section Board with the AES Authorities so, that a reduced fee was payable in Polish currency. Therefore, Conference personal badges allowing free entrance to all debates and exhibition areas were distributed among Polish participants during their separate organizational meeting held on the first Convention day, in the main hall.

Three representatives of the Polish AES Section board, i.e. Mrs. M. SANKIEWICZ (Chairman), Mr. A. CZYZEWSKI (Secretary) and Mrs. B. KOSTEK (Treasurer) attended an AES European Section Committee meeting, which was held at 1 pm, on March 25, in the first floor restaurant-hall. The AES Vice-President Mr. Gerhard STEINKE, presiding over the European AES Region, welcomed all Sections representatives, especially warmly those from new founded Sections within the former Eastern-Bloc countries. He invited section chairmen to express their opinions relative to various aspects of AES activities. Among other, Mrs. SANKIEWICZ, speaking on behalf of the Polish Section, thanked the AES Authorities for their organizational assistance at Polish Section foundation; she expressed hope that one of the future AES Conventions could be organized in Gdańsk.

The most important contribution of the Polish Section to Convention debates were papers written by Polish authors or coauthors. There were four such papers, the first two read during the morning session on Music and Musical Acoustic, on March the 25:

"Acoustic Investigation of the Carillons in Poland" written by M. SANKIEWICZ, A. KACZMAREK and G. BUDZYŃSKI from Gdańsk Technical University, was presented by G. BUDZYŃSKI. Starting with the historical background of the topic, he continued with the investigations carried out recently in the laboratories of the Sound Engineering Department of the Gdańsk Technical University, on three carillons, and discussed the results.

"Computer Modelling of the Pipe Organ Valve Action" written by B. KOSTEK and A. CZYZEWSKI from Gdańsk Technical University, (Preprint No. 3266), was presented by B. KOSTEK. She introduced the audience to the topic of the pipe organ control systems. She described a pipe organ instrument, built recently in Bielsko-Biała (Southern Poland), she explained functions of its computer control system, and presented new hardware solutions applied to the system design, as well as appropriate experiments carried out. The paper aroused a vivid interest among several organ builders participating in that session.

The third paper of that session: "Isolation of Rhythmic Patterns in Musical Signals" by G. KALLIRIS and

G. PAPANIKOLAOU from the University of Thessaloniki (Preprint No. 3267), read by G. KALLIRIS and presented by both authors, was especially interesting to Polish participants, as an opportunity to meet their Greek coworkers and to discuss common problems of interest for both parties. This meeting was agreed in advance among partners of the scientific cooperation on the field of acoustics and sound engineering, carried on by the Gdańsk Technical University, by the Aristotle University of Thessaloniki, Greece, by the Aalborg University, Denmark, and the Dalhousie University in Halifax, Canada.

The next Polish paper was read during the afternoon session on Architectural Acoustics, on March the 26. The paper entitled "Signal Simulation Based on Convolution of Room Impulse Response" (Preprint No. 33287), written by A. GOŁAŚ, H. ŁOPACZ and H. WIERZBICKI from the Academy of Mining and Metallurgy, Cracow, was presented by A. GOŁAŚ. He described a theoretical approach to predicting sound signal transmission through various rooms and gave some results of experimental applications.

The fourth paper was read during the session on Psychoacoustics, on the last Convention day, the 27. The paper resulted of the above mentioned cooperation, under the title: "Investigation of the Loud-Music-Exposure Hearing Loss" (Preprint No. 3312), was written by G. WHITEHEAD and M. ROLAND-MIESZKOWSKI, from the Dalhousie University, by G. PAPANIKOLAOU from the Aristotle University of Thessaloniki and by G. BUDZYŃSKI from Gdańsk Technical University, who presented the paper. The described facts of aggravating hearing loss in young people due to listening too loud music were alarming to session participants. As they concluded that organization of preventive action was necessary and urgent, so a discussion started on possible ways of introducing it in practice.

Several other papers read during the Convention debates are worth to be mentioned. First of all, papers written by our Danish colleagues from Aalborg University and from Perceptive Acoustics A/S Aalborg. The first one "Head-Related Transfer Functions: Measurements on 24 Human Subjects" by D. HAMMERSHØJ, H. MØLLER, M. SØRENSEN, K. LARSEN (Preprint No. 3289), and the second one "Transfer Characteristics of the Headphones" by H. MØLLER, D. HAMMERSHØJ, C. JENSEN, J. HUNDENBØLL (Preprint No. 3290). Both papers were devoted to the perpetual difficulties in proper sound reproduction due to inherent differences of speaker- vs. headphone-systems.

A numerous audience and a vivid interest was evoked among participants by Mr. W. WOSZCZYK with his paper entitled "Microphone Arrays Optimized for Musik Recording" (Preprint No. 3255). After a prolonged discussion and many questions addressed to the lecturer in the hall, it was a great pleasure for Polish participants to meet Mr. WOSZCZYK separately and have with him a nice chat in Polish. He graduated in the sixties in Warsaw Technical University in electroacoustics and went to America. There he made his degree and a brilliant career in audio engineering in Canada, where he is with the McGill University, Montreal. Recently Mr. WOSZCZYK was elected AES Governor and Chairman of the AES Membership Committee. The Polish AES Section hopes to have many future contacts with Mr. Woszczyk.

Another item of the Polish Section activity may be quoted here. A mini-exhibition of latest issues of the "Archives of Acoustics", offered by its Editors, was arranged on a Convention press stand, in order to promote the Polish quarterly among acousticians of the world.

To complete this report a few sentences ought to be devoted to many events accompanying the Convention. Awards were handed for those who made valuable contribution to the AES, during an evening reception at the Palais Ferstel in Vienna, on March the 25. The Awards presentation was preceded by a short concert of the Vienna Boys Choir. The evening continued with dinner, wine and Vienna style music.

Several Technical Tours were organized for Convention participants. The Tours were aimed to visit interesting institutions and industrial plants in Vienna, as e.g.: the Austrian Broadcasting Corporation TV-Centre, the Siemens factory, the AKG factory, Bösendorfer piano manufacture, Vienna State Opera, Wiener Musikvereinsaal, etc.

A rich social programme with many guided tours was also organized. It is, however, obvious that all those accompanying events were almost unaccessible for those who wanted to attend as many sessions as possible and to visit numerous interesting stands at the exhibitions. Seeing so much within three days is an exhausting task, especially for visitors coming from Poland mostly by car, and accommodated far away from the Austria-Center, because of obvious economic reasons.

Nevertheless, for all Polish participants the Convention was a successful experience. It was also an

organizational achievement of the young Polish AES Section. As Berlin was decided for the next AES Convention site, so the Polish Section would like repeat such experience in Spring 1993.

Chairman of the Polish AES Section
Doc dr inż *Marianna Sankiewicz*

NOISE-93

THE INTERNATIONAL NOISE AND VIBRATION CONTROL CONFERENCE will be held in St. Petersburg, Russia on May 31 – June 3, 1993.

Two hundred word abstracts should be submitted to: Malcolm J. Crocker, Co-chairman NOISE-93, Mechanical Engineering Department, 202 Ross Hall, Auburn University, AL 36849-5341, USA or Fax 205-844-3307 by October 31, 1992 at the latest. Final manuscripts are due by November 30, 1992.

NOISE-93 is being organized by the St. Petersburg Mechanics Institute in cooperation with the Acoustical Society of the Russian Federation, the Acoustical Society of America and similar societies or institutes in Brazil, China, Finland, Germany, India, Italy, Japan, the Netherlands and the United Kingdom.

The co-chairs of NOISE-93 are Professors Nickolai I. Ivanov (St. Petersburg, Russia) and Malcolm J. Crocker (Auburn, AL, USA).

Papers may be presented in English or Russian. There will be simultaneous translation. Books of Proceedings will be available also in both languages at the Conference and the written papers will be translated by the organizers. There will be a parallel cultural program involving visits in Hermitage, palaces and ballet, or other similar events.

A total of about 500 participant are expected, including 300 from Russia and 200 from 30 other countries.

The registration fee for the Conference is \$290.00 which includes the Books of Proceedings, a reception, and 3 cultural events. Meals for 4 days can be purchased for an additional sum of \$120.00.

For further information contact Dr. Malcolm J. Crocker, Co-chairman NOISE-93, Mechanical Engineering Department, 202 Ross Hall, Auburn University, AL 36849-5341, USA (Tel.: 205-844-3301 or Fax: 205-844-3307).