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ECHOES

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Celebrating 25 Years of Newman Fund Awards in Architectural Acoustics

William J. Cavanaugh

On May 24th 2011 at the 161st Meeting of the Acoustical Society in Seattle a special technical session of invited papers celebrated the 25 years that have elapsed since the first Robert Bradford Newman Student Medals were awarded in 1986 to students for *merit in the study of architectural acoustics*. To date Newman Medals have been awarded to students at more than fifty academic institutions where there are established courses in architectural acoustics and opportunities for students to apply the principles learned in their course work.

Bob Newman was a gifted teacher in architectural acoustics on the faculties of both the MIT School of Architecture and the Harvard Graduate School of Design as well as a popular invited lecturer at numerous schools of architecture throughout the world. Several of his former students including this author serve on the Newman Fund Advisory Committee and presented papers in the 25th anniversary session. Bob was also a founding principal of the pioneering acoustical consulting and research firm, Bolt Beranek and Newman (BBN), which grew rapidly from its formation in 1948 to provide acoustical consulting assistance for the new United Nations headquarters in New York from its initial office in Cambridge and subsequently from branch offices in Los Angeles, New York City, Chicago, Houston and San Francisco during the 1950s through the 1970s. BBN's plethora of new and interesting assignments in building acoustics provided Bob with a never ending supply of stories to illustrate fundamental principles in architectural acoustics. I often wondered where Bob acquired his unique highly effective teaching style until I became acquainted early in my own consulting career with the late Dr. C.P. Boner with whom Bob had studied while obtaining his BS and MS degrees in Physics at the University of Texas at Austin. Once a student heard explanations of the simplest to the most complex acoustical concepts, often



Participants in the Newman session: Carl Rosenberg, co-chair of fund advisory committee; Mary Newman, widow of Robert Newman and honorary chair of advisory committee; Bill Cavanaugh, co-chair of advisory committee; Michelle Vigeant, past Newman medalist and member of advisory committee

colored with humorous application examples, from either one of these extraordinary teachers they would never forget their essential teaching point!

Sadly at the peak of his teaching and consulting career Bob Newman succumbed to a sudden and unexpected aortic aneurism on 2 October 1983. Shortly after Bob's death a group of his friends and colleagues met periodically to see if there was some way that Bob's memory could be hon-

ored as well as continuing his self imposed teaching mission to "spread the word" in architectural acoustics. Bob constantly expressed the idea that, if architects are to produce really "well designed" buildings they must be exposed to at least one basic course covering the fundamentals of architectural acoustics preferably during their academic years or early in their professional practice. When the late Dr. Richard Bolt organized the first program in architectural acoustics at the MIT School of Architecture in the immediate post WWII years, with then graduate architectural student Bob Newman as his teaching assistant, there were perhaps no more than a half dozen formal courses in architectural acoustics at schools of architecture throughout the US and many of these of these were simply a few lectures by an often disinterested lecturer from the Physics department. At the time of Bob's death the number of schools with courses in architectural acoustics had more than doubled many taught by Bob or his former students as well as consulting colleagues at BBN. Fulfillment of the growing need for effective courses and teaching programs in architectural acoustics at institutions providing professional training for all those concerned with designing and engineering buildings of all types was the primary motivating factor for establishing the Robert Bradford Newman Student Award Fund.

As of the 25th Anniversary celebration the Newman

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Newman Fund Awards

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Student Award Fund has evolved into three distinct programs: the Newman Student Medals—for merit in the study of architectural acoustics; the Schultz Grants—for advancement of education in architectural acoustics, and, the Wenger Student Design Prizes—for excellence in acoustical design

Newman Medals—Through 2010, Newman Medals have been awarded to 227 students at more than 55 schools of architecture, architectural engineering and at a few schools of music throughout the world where there is at least one basic course of study in architectural acoustics and opportunities to apply fundamental acoustical design principals in their student work or applied research.

The medal was designed by Richard H. Bolt and at the request of Bob's wife, Mary Shaw Newman, Dick incorporated an image of a tuning fork which Bob often used for demonstrating basic acoustical principles. The final design which depicted sound waves radiating outward from the tuning fork also depicted "the expansion of knowledge" in acoustics as mandated in the by-laws of the Acoustical Society. It is interesting to note that Dick Bolt had also designed the Acoustical Society's unique Gold Medal and had earned a professional degree in architecture before he did graduate work toward his PhD in Physics. Incidentally it was Dick Bolt who had urged Bob Newman to first get a degree in architecture before continuing graduate studies in physics as Bob had intended when he enrolled at MIT in 1946. By the time Bob had earned his MArch in 1949, he had accepted a faculty position in the MIT Department of Architecture, BBN was already growing by leaps and bounds and he never returned to pursue his original goal of a PhD in physics.



Bob Newman

Many past Newman medalists have gone on to successful careers in architectural practice, serve on faculties at universities or have opted for careers in acoustical consulting. Several past medalists, Lily Wang, Andy Carballeira, Linc Berry, Donna Ellis, and Michelle Vigeant serve on the Newman Fund Advisory Committee which meets regularly at ASA meetings. The Advisory Committee reports to and is structured as a sub-committee of the Technical Committee on Architectural Acoustics with administrative support from the ASA office under the very capable direction of Elaine Moran and Louise Vollmer.

Each year some 10-15 Newman Medals are awarded to individual students along with a cash stipend and several books on architectural acoustics from the ASA Bookstore. It is expected that the number of institutions qualified to offer the medal as well as the number of students nominated for Newman Medals will continue to increase in the years ahead.

Schultz Grants—Theodore John (Ted) Schultz was a col-



league and friend of Bob Newman, a gifted researcher and Technical Director of the Architectural Technologies Division of BBN. Ted was also a charter member to the Newman Fund Advisory Committee. He passed away suddenly and unexpectedly of a heart attack in 1988 and through the generosity of his many friends, relatives and colleagues the Advisory Committee established the Theodore John Schultz Grant program. A modest grant of \$3000 is awarded about every 2 or 3 years from the Newman Fund to a teacher or researcher in architectural acoustics to partially support the development of a teaching aid or research in architectural acoustics education.

The first Schultz Grant was awarded in 1990 to Prof. Gary W. Siebein, at the University of Florida School of Architecture to partially support the production of a videotape "Demonstration of Basic Acoustical Principles using Scale Models." The 10th Schultz Grant was awarded to Prof. Ralph Muehleisen of the Illinois Institute of Technology toward developing "Virtual Acoustic Instrumentation Software for Teaching Architectural Acoustics." Proposals for the 11th Schultz Grant are due at the ASA Office in Melville, NY by December 31, 2011 and the 11th Grant will be awarded in early 2012.

Wenger Prizes—Harry Wenger was a music educator in Owatonna, MN who during the pre-WWII era invented and produced, initially in his home garage, several devices that were useful in the teaching of music. The popularity and increasing sales of his inventions soon led to founding of the Wenger Corporation in 1946 which has become a large manufacturing operation and major employer in Owatonna. In the early 1960s Harry engaged Bob Newman as a consultant on Wenger's first portable music shells as well as other equipment, materials and systems Wenger had planned to develop to enhance the acoustical environments of music rehearsal and performance spaces. The passion for music and acoustics developed during those early consultations between Bob Newman and Harry and his son Jerry, now President, still permeates the Wenger Corporation today as well as its relationships with the Acoustical Society and members of the acoustical consulting profession.

Ron Freiheit Technical Director at Wenger is a past Chair of TCAA and maintains an active interest in the committee's activities including the Student Design Competitions now sponsored annually by TCAA, with the support of the National Council of Acoustical Consultants and the Newman Student Award Fund. Through Ron's efforts the Wenger Foundation, a non profit foundation established following Harry Wenger's death and funded by the Wenger Corporation, has been a continuing annual donor for First Honor Wenger Prizes of \$1250 and four Commendation Wenger Prizes of \$700 each. The results of the Student Design Competitions held at ASA meetings from 2001 through 2010 may be viewed at the Newman Fund website: www.newmanfund.org as well as the competition

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Echoes from Seattle

From the Student Council

Alex Sell

Greetings from Seattle! The student contingent of the society was well represented by the 364 students who attended this most recent ASA meeting. We continued our tradition of the Monday evening student icebreaker, Wednesday evening student forum and reception, and debuted the Interdisciplinary and Student Council Session titled, "Introduction to Technical Committee Research and Activities, especially for Students and First-Time Meeting Attendees." This session was held to introduce the different technical areas of the Society to first-timers, and talks were given by seasoned members of each technical committee. The student council would like to thank all of the presenters at this session and plans to sponsor similar sessions once-yearly at domestic meetings.

In other news, the Student Council elected its new Chair, Eric Dieckman. We would like to thank our outgoing Chair, Lauren Ronsse for her service to the Society. Also, three posi-

tions for technical committee representatives to the Student Council are open, effective immediately, and three more will open following the ASA meeting in San Diego, this fall. Interested students should visit: <http://www.acosoc.org/student/council/council.html> for more details.

If you would like more news on student events, check out our Twitter feed, @ASASStudents, or sign up for the ASA student mailing list: http://lists.acosoc.org/mailman/listinfo/asa_student. We look forward to seeing many more students in San Diego this fall!



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program for the 2011 Student Design Competition held recently at the 161st ASA meeting in Seattle on May 23-27. The results of the 2011 competition will be posted soon on the Newman Fund website.

The presenters at the 25th Newman Award Fund technical session in Seattle provided additional information and detail on the Fund's three major programs as well as experiences with particular programs at their schools. The papers are being assembled and will be posted soon on the Newman Fund website. Following the technical session a reception, complete with an anniversary cake, was held in the Cirrus Room in the Sheraton Seattle Tower.

Clearly the first 25 years of the Newman Fund has made

great strides in expanding knowledge in architectural acoustics throughout the educational institutions that produce professionals who design, engineer and contribute toward achieving satisfactory acoustical environments in and around buildings. Perhaps the next twenty five years will see building industry move closer to fulfillment of Bob Newman's vision where all professionals involved will have at least a conceptual understanding of the fundamentals of architectural acoustics needed to produce truly well designed buildings.

William J. Cavanaugh

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New fellows: George Frisk (ASA president), Brent Edwards, Gioria Rosenhouse, Michel Heinz, J. Brian Fowlkes, Ronald Kastelein, Thomas Moore, Stephanie Shattuck-Hufnagel, Mark Schafer, Benjamin Munson, Roger Waxler, James C. Presig, Donal Sinex, Magdalena Wojczak, Judy Dubno (ASA vice-president).