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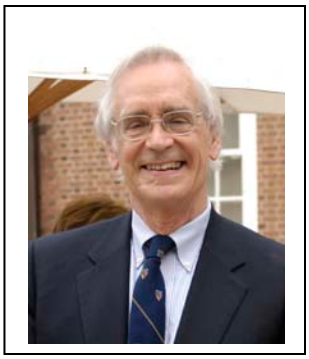
April 2012



Education:

B.S. Mechanical Engineering, N.C. State University, 1960
M.S. Mechanical Engineering, N.C. State University, 1961
Ph.D. Mechanics, The Johns Hopkins University, 1966

Professional Experience:

1997 - 2009	Decker Professor, Mechanical Engineering, JHU
1993 - 2009	Member of the Principal Professional Staff of the Johns Hopkins University Applied Physics Laboratory
1991 – 1997	Decker Professor and Chairman, Mechanical Engineering, JHU.
1/90- 6/90	Alexander von Humboldt Foundation Scholar, Braunschweig and Freiburg, West Germany.
1/89 - 6/89	National Research Council Associate, NASA-Langley Research Center, Hampton, Virginia.
1988 - 1991	Decker Professor, Mechanical Engineering, JHU.
1983 - 1988	Professor and Chairman, Mechanical Engineering, JHU.
1978-1983	Professor and Chairman, Mechanical Engineering, Louisiana State Univ.
1966-1978	Assistant Professor, Associate Professor and Professor, Metallurgy, Mechanics, and Materials Science, Michigan State University.
1973 - 1974	National Research Council Associate, Air Force Materials Laboratory.
Winter, 1970	Visiting Scientist, Sandia National Laboratories, Albuquerque, NM.
Summer, 1971	Visiting Scientist, Lawrence Radiation Laboratories, Livermore, CA.

Professional Societies:

Society for Experimental Mechanics
Technical Editor, *Experimental Mechanics*, 1976 - 78; Executive Board, 1979-81 and 1983-87; President, 1984-5
American Society for Engineering Education
Chairman, Instrumentation Division, 1975
American Society of Mechanical Engineers
Chairman, Experimental Mechanics Committee, 1989-91; Associate Technical Editor, Journal of Applied Mechanics, 1990 -1997; Representative to Engineering Accreditation Commission of ABET, 1992-97; Committee on Engineering Accreditation, 1992-2002 (Chairman 2000-2001); Representative to ABET Board of Directors, 2000-2003
Institute of Electrical and Electronics Engineers
Associate Technical Editor, Journal of Microelectromechanical Systems, 1998 - 2003

Honors:

Pi Tau Sigma; Tau Beta Pi; Midwest Mechanics Seminar Lecturer – 1984; Best Paper in Volume 105 (1983) of the Journal of Engineering Materials and Technology; Fellow of ASME - 1985 ; Alexander von Humboldt Award - 1989/90; Fellow of Society for Experimental Mechanics (SEM) – 1992; SEM Tatnall Award for Service – 1992; ASME Nadai Award – 1993; SEM Frocht Award for Education – 1996; ASME Dedicated Service Award – 1997; Southwest Mechanics Seminar Lecturer – 2000; SEM Lazan Award for original technical contributions – 2001; SEM Murray Medal for study of mechanical behavior on the microscale – 2002; ASEE Ralph Coates Award – 2007 SEM Honorary Member – 2012.

William N. Sharpe, Jr. is the Alonzo G. Decker Professor Emeritus and founding chairman of the Department of Mechanical Engineering at Johns Hopkins University. A member since 1965, he was president of the Society for Experimental Mechanics (SEM) in 1984/5, Murray Lecturer in 2002, and editor of the 2008 Handbook of Experimental Mechanics. After graduating from N. C. State in 1961 and Johns Hopkins in 1966, he began his teaching/research career at Michigan State. He became chairman of Mechanical Engineering at Louisiana State in 1978 and returned to Hopkins in 1983. He is a Fellow of SEM as well as the American Society of Mechanical Engineers where he received the Roe Award for 'notable contributions to the profession'. In 2012, he was elected Honorary Member of SEM.

Research centered on a real-time laser interferometric technique for measuring biaxial strain over very small gage lengths. The advent of MEMS in the 1990s led to the need for mechanical properties of specimens produced by the same processes as the microdevices. The uniaxial tensile specimens he developed were typically 5 microns thick, 100 microns wide and 2 mm long. This noncontact technique was ideally suited for stress-strain curves meeting the requirements of ASTM. Polysilicon, gold, platinum, silicon nitride, and silicon dioxide films were the subjects of extensive studies.

He retired in 2009 and with his wife Margaret moved back to their home in North Carolina.

Journal Articles

1. Sharpe, W. N., Jr., "The Portevin-LeChatelier Effect in Aluminum Single Crystals and Polycrystals," *Journal of the Mechanics and Physics of Solids,* Vol.14, pp. 187-202 (1966).

2. Sharpe, W. N., Jr., "The Interferometric Strain Gage,"*Experimental Mechanics,* Vol.8, pp. 164-170 (April 1968).

3. Sharpe, W. N., Jr., "Gage Length Errors in Plastic Wave Measurement," *Journal of Applied Mechanics*, Vol.36, pp. 870-871 (December 1969).

4. Sharpe, W. N., Jr., "Dynamic Strain Measurement with the Interferometric Strain Gage," *Experimental Mechanics*, Vol.10, pp. 89-92 (February 1970).

5. Sharpe, W. N., Jr., "A Materials-Mechanics Laboratory Course for Undergraduates," *Engineering Education*, Vol.60, pp. 891-893 (May 1970).

6. Sharpe, W. N., Jr., "A New Biaxial Strain Gage," *Review of Scientific Instruments*, Vol.41, pp. 1400-1433 (October 1970).

7. Sharpe, W. N., Jr., "Dynamic Plastic Response of Foil Gages," *Experimental Mechanics*, Vol.10, pp. 408-415 (October 1970).

8. Sharpe, W. N., Jr., "Interferometric Surface Strain Measurement," *International Journal of Nondestructive Testing*, Vol.3, pp. 59-76 (1971).

9. Sharpe, W. N., Jr., Wasley, R. J., and Breithaupt R. D., "A Noncontacting, Short-Gage-Length Technique for Measuring Strains on Plastics," *Journal of Applied Polymer Science*, Vol.16, pp. 1573-1578 (1972).

10. Sharpe, W. N., Jr., "Fracture of Lucite Cones by Shock Waves," *Journal of Applied Mechanics*, Vol.39, pp. 390-394 (June 1972).

11. Sharpe, W. N., Jr. and Hoge, K. G., "Specimen Strain Measurement in the Split Hopkinson Pressure Bar Experiment," *Experimental Mechanics*, Vol.12, pp. 570-574 (December 1972).

12. Barendreght, J. A., and Sharpe, W. N., Jr., "The Effect of Biaxial Loading on the Critical Resolved Shear Stress of Zinc Single Crystals," *Journal of the Mechanics and Physics of Solids*, Vol.21, pp. 113-l23 (1973).

13. Sharpe, W. N., Jr., Kusza, T. J., Sherman, F. W., and Goff, J. G., "Preliminary Measurement and Analysis of the Vibration Environment of Common Motor Carriers," *Shock and Vibration Bulletin*, No.44, Part 4, pp. 87-99 (August 1974).

14. Sharpe, W. N., Jr., "A Short-Gage-Length Optical Gage for Small Strain," *Experimental Mechanics*, Vol.14, pp. 373-377 (September 1974).

15. Sharpe, W. N., Jr., "Strain Gages for Long-Term High Temperature Strain Measurement," *Experimental Mechanics*, Vol.15, pp. 482-488 (December 1975).

16. Sharpe, W. N., Jr. and Grandt, A. F., Jr., A Preliminary Study of Fatigue Crack Retardation Using Laser Interferometry to Measure Crack Surface Displacements," *ASTM STP 601, American Society of Testing and Materials*, pp. 302-320 (1976).

17. Sharpe, W. N., Jr., Corbly, D. M., and Grandt, A. F., Jr., "The Effects of Rest-Time on Fatigue Crack Retardation and Observations of Crack Closure," *ASTM STP 595, American Society of Testing and Materials*, pp. 61-77 (1976).

18. Macha, D. E., Sharpe, W. N., Jr., and Grandt, A. F., Jr., "A Laser Interferometry Method for Experimental Stress Intensity Factor Calibration," *ASTM STP 601}, American Society of Testing and Materials*, pp. 490-505 (1976).

19. Hollenberg, G. W. and Sharpe, W. N., Jr., "Measurement of Thermal Expansion at High Temperatures by Laser Interferometry of Two Fibers," *Review of Scientific Instruments*, Vol.47, pp. 165-170 (February 1976).

20. Sharpe, W. N., Jr., and Payne, T. S., Smith, M. K., "A Biaxial Laser-Based Displacement Transducer," *Review of Scientific Instruments*, Vol.49, pp. 741-745 (June 1978).

21. Sharpe, W. N., Jr., "Residual Strains Around Coldworked Fastener Holes," *Journal of Engineering Materials and Technology*, Vol.100, pp. 310-312 (July 1978).

22. Poolsuk, S. and Sharpe, W. N., Jr., "Measurement of the Elastic-Plastic Boundary Around Coldworked Fastener Holes," *Journal of Applied Mechanics*, Vol.45, pp. 515-520 (September 1978).

23. Emery, S. A. and Sharpe, W. N., Jr., "The Residual Strain Distribution Around a Fastener Hole Coldworked with a Tube Expander," *Journal of Engineering Materials and Technology*, Vol.100, pp. 304-306 (1979).

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65. Sharpe, W. N., Jr., Danley, D., and LaVan, D., ''Microspecimen Tensile Tests of A533-B Steel," *Small Specimen Test Techniques, ASTM STP 1329*, W. R. Corwin, S. T. Rosinski, and E. Van Walle, Eds., American Society for Testing And Materials, pp. 497-512, (1998).

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68. LaVan, D. A., Duncan, P. B., Zeng, H., and Sharpe, W. N., Jr., ''A New Gripping Technique for Small Metal Specimens'', *Journal of Testing and Evaluation,* Vol. 27, No. 3, pp. 243-246, (1999).

69. Sharpe, W. N., Jr., Turner, K. T., and Edwards, R. L., "Tensile Testing of Polysilicon", *Experimental Mechanics*, Vol.39, pp. 162-170, (1999).

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71. Bagdahn, J. and Sharpe, W. N., Jr., "Fatigue of Polycrystalline Silicon under Long-term Cyclic Loading, *Sensors and Actuators A*, Vol. 103, pp. 9-15, (2003).

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Books Edited

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Book Chapters

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