GEORGE E. HEIN

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PROFESSIONAL EXPERIENCE

1998-	**Professor Emeritus,** Lesley University, Graduate School of Arts and Social Sciences, **Senior Research Associate**, Program Evaluation and Research Group, Lesley University, Cambridge, MA
2011	**Museum Guest Scholar,** Getty Research institute (January – March)
2009-10	**Fellowship in Museum Practice**, Smithsonian Center for Education and Museum Studies, Smithsonian Institution, Washington, DC
2008	**Visiting Faculty Member**, Fu-Jen University, Taipei, Taiwan (January)
2006-2007	**President**, Technical Education Research Centers (TERC), Cambridge, MA
2000	**Visiting Professor,** University of Technology, Sydney, Australia (March-April)
1999	**Osher Fellow**, Exploratorium, San Francisco, CA (Feb. - March)
1975-1998	**Professor**, Graduate School of Arts and Social Sciences, **Co-Director, Program Evaluation and Research Group**, l976-98, **Dean, Division for Advanced Graduate Study and Research**, l985-90 Lesley College
1997	**Howard Hughes Medical Institute Visiting Scholar**, California Institute of Technology, Pasadena, CA (Jan. - Feb.)
1996	**Visiting Faculty** Museum Studies Program, Leicester U., (Feb. - June)
1990	**Fulbright Research Fellow,** King's College, London, (Jan. - June)
1981-82	**Research Associate,** Museum of Science (Boston), (Sept. - May)
1973-75	**Study and Travel Grant** Ford Foundation
1971-73	**Area Director**, Open Education, **Director**, Follow Through Project, Education Development Center, Newton, MA
1969-71	**Associate Professor**, Boston University, School of Education
1967-69	**Staff Developer**, Elem. Science, Study Education Development Center,
1966-67	**Research Associate**, Depart. of Biological Chemistry, Harvard Medical School, Boston, MA
1962-66	**Assistant Professor,** Chemistry, Boston University,
1959-62	**Faculty Research Fellow,** California Institute of Technology

EDUCATION

Ph. D., M. S., University of Michigan; chemistry
A. B., Cornell University; chemistry.

PROFESSIONAL ACTIVITIES

Membership:

American Association of Museums
John Dewey Society
International Council of Museums
New England Museum Association
North Dakota Study Group on Evaluation
Visitor Studies Association

Other Current Activities:

Editorial Board, *CURATOR: The Museum Journal* 2008-

Advisory Committee, Maud Morgan Visual Arts Center, 2008-
Board of Directors, Agassiz Baldwin Community, 2008-
Editorial Board, *Museums and Social Issues, 2006-*
Advisory Board, *Informal Learning in Science Afterschool* (ILSA), 2006-
Board of Trustees, TERC, Cambridge, MA, 1999-
Co-Chair, 2011-
Editorial Advisory Committee *Visitor Studies Today,* 1997-
Book Review Editor, 1997-2011
Corporation Member, Community Music Center of Boston, 1995-

RECENT LECTURES AND WORKSHOPS

November 13, 2012 • "John Dewey, Albert Barnes and Museums," Lesley University, Cambridge, MA

November 6, 2012 • "The Social Responsibility of Museums: An Education Perspective," Bunkyo University, Kamakura, Japan.

November 5, 2012 • "The Dilemma of Science Museum Education:
How to Teach Visitors Who Only Want to Learn," National Museum of Emerging Science and Innovation, Tokyo, Japan

November 4, 2012 • **"**Learning in the Museum: Theory and Practice, National Science Museum, Tokyo.

3November 2, 2012 • "The Social Responsibility of Museums:
An Education Perspective, Nanzan University, Nagoya, japan.

November 1, 2012 • "John Dewey and Museums," Kyushu University, Fukuoka, Japan.

October 31, 2012 • "Museums in a Democratic Society: Educational Settings and Places of Learning," International Symposium: Educational Cooperation between Museums for Humanities and Sciences, Fukuoka, Japan.

October 8, 2012 • "John Dewey and Museums," Thorvaldsens Museum, Copenhagen, Denmark.

April 26, 2012 • "Copenhagen Medborgerskab Project," Seminar presentation, Thorvaldsens Museum, Copenhagen, Denmark.

April 16, 2012 • "The Social Responsibility of Museums in a Democracy," Keynote address, *Young People and Museums 2012 Conference*, Copenhagen, Denmark.

March 28, 2012 • "Ph. D. Program: History, Arts and Communitarianism," Ph. D. in Educational Studies, 25h Anniversary Celebration, Lesley University, Cambridge, MA.

November 4-5 • 2011, discussant at conference, *Perspectives on Progressivism and the Museum,* Getty Research institute, Los Angeles, CA.

October 12, 2011 • "A Personal Perspective on PERG's History: The first 22 years" 35th Anniversary Celebration, Lesley University, Cambridge, MA.

September 22, 2011 • *"*A Democratic Theory of Museum Education." Lecture, Museum für Völkerkunde, Vienna, Austria.

September 18, 2011 • Why Museum Educators?" Keynote address at the annual conference of ICOM/CECA, Zagreb, Croatia.

September 13, 2011 • "Museum Exhibitions and Programs to Promote Democracy," Workshop Presentation, Arken Museum of Modern Art, Copenhagen, Denmark.

March 21, 2011 • "Democracy and Museums: A Progressive Education Theory for Museum" Seminar presentation, Museum of Contemporary Art, Los Angeles, CA.

March 3–4, 2011 • Discussant, Art as a Way of Knowing Conference, The Exploratorium, San Francisco, CA.

January 27, 2011 • "Democracy and Museums: A Progressive Education Theory for Museums" Seminar presentation, Getty Museum, Los Angeles, CA.

November 19, 2010 • Participant, Education Strategy Colloquium, The Barnes Foundation, Philadelphia, PA.

October 24–30, 2010 • "A Democratic Theory of Museum Education: Democracy and Museums" two lectures (São Paulo & Recife, Brazil,) International Conference, Dialogues in Education, Museums and Art.

August 2, 2010 • "Dewey's Debt to Barnes?" Lecture, Teaching Institute in Museum Education (TIME), School of the Art Institute of Chicago, Chicago, IL.

April 8–9, 2010 • "Democracy and Museums," two lectures, Wexner Center for the Arts and Columbus Museum of Art, Columbus, OH.

March 15, 2010 • "An Introduction to Constructivist Learning Education Theory," keynote address, Internationalt formidlingsseminar 2010, Nyborg, Denmark.

February 4, 2010 • "Museums and Education for Democracy: Some historical examples (including the Smithsonian Institution?) and a discussion" Brown Bag luncheon presentation, Smithsonian Institution, Washington, DC.

January 23, 2010 • "Aesthetics and Politics (or Thought and Action) : Dewey and Barnes," Keynote address, 5th Annual Graduate Philosophy Conference, Art, Ethics and Democracy, West Chester University. West Chester, PA.

October 7, 2009 • "Museums and Democracy," Keynote address at the annual conference of ICOM/CECA, Reykjavik, Iceland, http://ceca.icom.museum.

August 3, 2009, • "Progressive Museum Education; Dewey and Barnes," Keynote address, 2009 TIME/Teaching Institute in Museum Education, School of the Art institute of Chicago, Chicago, IL.

May 13, 2009 • "The Social Significance of the Constructivist Museum," Keynote address, International Symposium, La aportación educative de los museos a la Sociedad, San Juan, PR, sponsored by Museo de Arte de Ponce.

SELECTED PUBLICATIONS

B O O K S / M O N O G R A P H S

G. E. Hein, *Progressive Museum Practice: John Dewey and Democracy,* Walnut Creek: Left Coast Press: 2012.

G. E. Hein and Mary Alexander, *Museums: Places of Learning*, Washington, DC: American Association of Museums, 1998.

G. E. Hein, *Learning in the Museum,* London: Routledge, 1998.

G. E. Hein and Sabra Price, *Active Assessment for Active Science*, Portsmouth, NH: Heinemann, l994.

G. E. Hein, editor, *The Assessment of Hands-on Elementary Science Programs*, monograph, Grand Forks, ND: North Dakota Study Group on Evaluation, 1990.

G. E. Hein, *Open Education, an Overview*, a collection of three articles, Newton, MA: Education Development Center, 1975.

G. E. Hein, *Open Education Perspective on Evaluation*, monograph, Grand Forks, ND: North Dakota University Press, 1975.

M U S E U M R E S E A R C H A N D E D U C A T I O N

Hein, G. E. (2011) "Dewey's Debt to Barnes," *Curator: The Museum Journal, 54[2], 123-140.*

Hein, G. E., (2011) "The Museum as Social Instrument," In J. Fritsch, *Museum Gallery Interpretation and Material Culture,* London: Routledge

Hein, G. E., (2010) "La responsabilidad social de los museums/The Social Responsibility of Museums," In Ana Margarita Hernández Pérez, editor, La Aportación Educativa de los Museos a la Sociedad, Ponce, Puerto Rico: Museo de Arte de Ponce.

Hein, G. E. (2009) "O dilemma da Educaçåo Cientifica: como ensinar quando os visitants apenas quere aprendar." In Marandino, M, Almeda, A. M. & Valente, M. E. A. editors, *Museo: lugar do publico,* Rio de Janeiro: Editora Fiocruz.

Hein G. E. (2009) "Múzeumpedagógia: Nézzünk elöre!" In, **Vásárhelyi, T.** és **Kárpáti** A. **,** editors, *A Múzeumi Tanulás Kézikönyve: Továbbképzı tanfolyami jegyzet,* Budapest: Magyar Természettudományi Múzeum.

Hein, G. E. (2008) "Educazione scientifica e musei: passato, presente e futuro," In Questa è Scienza! Atti della Conferenza Internationale, Milano: Fondazione Cariplo.

Hein, G. E. (2008) "A Century of Museum Education", *Taiwan Natural Science 27(2)*, 14-25. This article is based on two lectures delivered in Taipei, Taiwan, January, 2008. (also translated into Mandarin).

Hein, G. E. (2006) "Museum Education," in S. MacDonald, editor, *A Companion to Museum Studies*, Oxford: Blackwell Publishing, Chapter 20.

Hein, G. E. (2006) Progressive education and museum education: Anna Billings Gallup and Louise Connolly, *J. Museum Education, 31[3]* 161-174.

Hein, G. E. Foreword, in J. Mokros, editor, (2006) *Math Momentum in Science Centers,* Cambridge, MA: TERC.

Bailey, E. B. and Hein, G. E. (2006) "Evaluation 101," in C. C. Yao, *Handbook for Small Science Centers,* Lanham, MD: AltaMira Press.

Hein, G. E. (2006) “John Dewey’s ‘Wholly Original Philosophy’ and its Significance for Museums,” *Curator*, 49 [2], 181-202.

Hein, G. E. (2005) “The Meaning of Meaning Making” *Exhibitionist,* 25[1] 18-25.

Hein, G. E. (2004) “The Role of Museums in Society: Education and Social Action,” *Curator: The Museum Journal, 48* [4] 357-363.

Hein, G. E. (2004) “John Dewey and Museum Education,” *Curator: The Museum Journal, 47* [4] 413-427.

Hein, (2004) “Museum-School Bridges: A Legacy of Progressive Education,” ASTC *Dimensions,* Jan./Feb.

Black. M. and Hein, G. E. (2003) “You're Taking Us Where? Reaction and Response to a Guided Art Museum Fieldtrip, in M. Xanthoudaki, L. Tickle & V. Sekules (eds.) Researching Visual Arts Education in Museums and Galleries, Dordrecht: Kluwer Publishers.

Bartels, D. and Hein, G. E. (2003) “Learning in Settings Other Than Schools,” book review, *Educational Researcher*, Vol. 32[6] 38-42.

Bailey, E. B. and Hein, G. E. (2002) “Museum Educators and Communities of Practice,” ASTC *Dimensions,* Nov./Dec. 2002.

Hein, G. E. (2001) “Constructivism: More than Meaning Making,” *Museological Review*, 7, 1-17.

L. Baum, L., Hein G. E. and Solvay, M. (2000) “In Their Own Words: Voices of Teens in Museums,” J. Museum Ed., 25[3] 9-13.

Hein, G. E. (1999) “Is Meaning Making Constructivism? Is Constructivism Meaning Making?” The Exhibitionist, 18(2) 15-18.

Bailey, E. B. Bronnenkant, K., Kelley, J and Hein, G. E. (1998) “Visitor behavior at a Constructivist Exhibition: Evaluating *Investigate!* at Boston’s Museum of Science,” in Dufresne-Tassé, C. editor, Évaluation et éducation muséal: nouvelles tendances, Montreal: ICOM/CECA, pp. 149-168.

Hein, G. E. (1996) "What Can Museum Educators Learn from Constructivist Theory?" Gesché, N. (ed.) Study Series, Committee for Education and Cultural Action (CECA). Paris: ICOM: 13-15.

Hein, G. E. (1996) "Constructivism and the Natural Heritage," in Astudillo, L., (ed.) Museums, Education and the Natural, Social and Cultural Heritage, Proceedings of the 1994 CECA Meeting. Cuenca, Ecuador: ICOM/CECA.

Hein, G. E. (1995) "Evaluating Teaching and Learning in Museums," in Eilean Hooper-Greenhill, editor, *Museums, Media, Message,* London: Routledge.

Hein, G. E. (1995) "The Constructivist Museum." *Journal of Education in Museums, 16,* 15-17 1995.

Hein, G. E. (1993) "Museum Education, A Bibliographical Essay," *Choice, Vol. 30,* July/August, pp. 1733-1741.

Hein, G. E. (1992)"The Significance of Constructivism for Museum Education," in Avshalom Zemer, editor, *The Museum and the Needs of People*, Haifa: Israel National ICOM Committee. (reprinted several times, and translated into Spanish and German.)

Price, S. and Hein, G. E. (1991) "More than a field trip: science programmes for elementary school groups at museums," *Int. J. Sci. Educ., 13*, (5) 505-519.

Davidson, B. Heald, C. L. and Hein, G. E. (1991) "Increased Exhibit Accessibility Through Multisensory Interaction, " *Curator, 34/4,* 273-290.

Hein, G. E. (1991) "Teaching Teachers to use Museums," in *Establishing, Maintaining and Developing Museum Educational Services*, Athens: ICOM Hellenic National Committee.

Hein, G. E. (1991) "How Children Behave in Museums," *I.C.O.M. Education*, *XII and XIII*, 52-57.

Hein, G. E. (1990) guest editor, "Learning from Others about Learning," special issue of the *Journal of Museum Education*, 15 #1, Winter.

Hein, G. E. (1989) "Learning about Learning in Museums," *Hand to Hand*, Association of Youth Museums, winter.

Hein, G. E. (1982) "Evaluation of Museum Programs and Exhibits," in T. H. Hansen, K.-E. Andersen and P. Vestergaard, editors, *Museum Education*, Copenhagen: Danish ICOM/CECA.

Engel, B. S. and Hein, G. E. (1981) "Qualitative Evaluation of Cultural Institution/School Education Programs," in S. N. Lehman and K. Igoe, editors, *Museum School Partnerships: Plans and Programs*, Washington, DC: Center for Museum Education.

S C I E N C E E D U C A T I O N A N D A S S E S S M E N T

Hein, G. E. (2006) Science education for a thriving democracy, *Hands On! 29[10* 4-6,19.

G. E. Hein and S. Lee, “Assessment of Science Inquiry,” in *Inquiry: Thoughts, Views, and Strategies for the K-5 Classroom*, Washington DC: National Science Foundation, 1999.

S. Price and G. E. Hein, "Scoring Active Assessments", *Science and Children* , 32(2) October 1994.

S. Price and G. E. Hein" New Science Assessments", *Centerpiece*, Lesley College, March 1992.

G. E. Hein, "Active Assessment for Active Science," in V. Perrone, editor, *Expanding Student Assessment*, Alexandria, VA: Association for Supervision and Curriculum Development, l991.

G. E. Hein, "How Long Is This Table? Research on Children's Measurement," *Centerpiece,* Lesley College, June, l991.

G. E. Hein, "The Flowering of Science Assessment," *Networking,* U. of North Carolina Mathematics and Science Education Network, Spring, l991.

G. E. Hein, "The Right Test for Hands-on Science," *Science and Children*, 25 (2), 8-12, October 1987

G. E. Hein, "Evaluation in Open Education: Emergence of a Qualitative Methodology," chapter in S. Meisels, editor, *Special Education and Development: Perspectives on Young Children with Special Needs*, Baltimore: University Park Press, 1979.

G. E. Hein, "Standardized Testing, Reform is not Enough," in *Testing and Evaluation: New Views*, Association for Childhood Education International, Washington, 1975.

G. E. Hein, "An Interview with Pat Hourihan," Working Paper, *Elementary Science Study*, Education Development Center, 1970.

G. E. Hein, "An Interview with Bruce Whitmore," Working Paper, Elementary Science Study, Education Development Center, 1970.

G. E. Hein, "An Interview with Dorothy Welch," Working Paper, Elementary Science Study, Education Development Center, 1969. Reprinted in *Open Education*, E. B. Nyquist and G. R. Hawes, Bantam Books, New York, 1972.

G. E. Hein, "Children's Science is Another Culture," *Technology Review*, December 1968, p. 61. Reprinted in *The ESS Reader*, Education Development Center, Inc., Newton, 1970.

E D U C A T I O N

G. E. Hein, “A Progressive Education Perspective on Evaluation,” In B. S. Engel and A. C. Martin, eds. *Holding Values: What We Mean by Progressive Education,* Portsmouth, NH: Heinemann, 2005, pp. 176-181.

G. E. Hein, "The Logic of Program Evaluation: What Should We Evaluate in Teacher Enhancement Projects?" in Friel, S. N. and G. W. Bright, Reflecting on Our work: NSF Teacher Enhancement in K-6 Mathematics, Lanham, MD: University Press of American Inc., 1996.

G. E. Hein, "The North Dakota Study Group," *Radical Teacher*, No. 31, June 1986, pp. 5-10.

J. M. Paradise and G. E. Hein, *Impact of Participation in Teacher Center Activities on Teachers' Personal and Professional Development*, San Francisco, CA: Far West Laboratory for Educational Research and Development, 1980.

G. E. Hein, "The Science of Watching and Wondering," *Urban Review*, 9, 242-248 (1976).

G. E. Hein, "New Schools, Old Habits," *The Current,* Lesley College, 4, 12-15, Winter 1976.

R. Corwin, G. E. Hein, and D. Levin, "Weaving Curriculum Webs: The Structure of Nonlinear Curriculum," *Childhood Education*, 52, 248-51 (1976).

G. E. Hein, "Standardized Testing, Reform is not Enough," in *Testing and Evaluation: New Views*, Association for Childhood Education International, Washington, 1975.

G. E. Hein, "Humanistic and Open Education, Comparison and Contrast," J*ournal of Education*, 157, No. 3, 27-38, August 1975.

G. E. Hein, "The Social History of Open Education," *Urban Review*, 8, 96-119 (1975).

G. E. Hein, "Piaget, Materials and Open Education," *EDC* News, 1, 1973.

G. E. Hein, "The Impact of 'Stuff' in the Classroom," *Education Technology* IV, 54 (1969). Reprinted in *Technology and Education*, L. Lipsitz, editor, Education Technology Publications, Englewood Cliffs, 1971.

H I S T O R Y O F S C I E N C E

G. E. Hein, "Let's Not Teach the History of Chemistry,” *Teaching the History of Chemistry, A Symposium*, G. Kaufman, editor, Academiac Kaido, Budapest, 1971, p.39.

G. E. Hein, "Kékule and the Architecture of Molecules," in *Kékule Centennial*, O. T. Benfey, editor, American Chemical Society, 1966, p.1.

H. Hein and G. E. Hein, "The Chemistry of the Noble Gases: A Modern Case History," *J. History of Ideas*, 27, 417 (1966).

G. E. Hein, "The Liebig-Pasteur Controversy," *J. Chem. Ed.*, 38, 617 (1961), reprinted in *Selected Readings in the History of Chemistry*, A. J. Ihde and W. F. Kieffer, editors, American Chemical Society, Easton, PA, 1965.

G. E. Hein, "The Reaction of Tertiary Amines with Nitrous Acid," *J. Chem. Ed.*, 40, 181 (1963).

C H E M I S T R Y / B I O C H E M I S T R Y

D. E. Lenz and G. E. Hein, "Acetylcholinesterase: New Evidence for an Acetyl-enzyme Intermediate," *Biochem. Biophys. Acta*, 220, 617 (1970).

S. Kumar and G. E. Hein, "Structural and Steric Specificity of α-Chloroketones as Inhibitors of a-Chymotrypsin," *Biochem. Biophys. Acta*, 206, 404 (1970).

S. Kumar and G. E. Hein, "The Autolysis of α-Chymotrypsin," *Biochemistry*, 9, 291 (1970).

W. P. Bryan and G. E. Hein, "Proteins," *Encyclopedia of Polymer Science and Technology*, N. Bikales, editor, Vol. II, 619 (1969).

B. M. Sanborn and G. E. Hein, "The Interaction of Trypsin with Neutral Substrates and Modifiers," *Biochemistry*, 7, 3616 (1968).

S. Kumar and G. E. Hein, "A Rapid Kinetic Method for the Differentiation of Native, Modified and Inactive Enzymes," in *Structure and Reactions of DFP -Sensitive Enzymes,* E. Heilbronn, editor, Forsvarets Forskingsanstalt, Stockholm, 1967, p.89.

B. Sanborn and G. E. Hein, "On the Interaction of Trypsin with Neutral Substrates and Inhibitors," *Biochem. Biophys., Acta*, 139, 524 (1967).

J. Rapp, C. Niemann and G. E. Hein, "The Primary Specificity of Chymotrypsin: Further Evidence for 'Wrong-way Binding,'" *Biochemistry*, 5, 4100 (1966).

D. R. Ponzi and G. E. Hein, "Stereospecific Activation of Chymotrypsin Catalyzed Hydrolyses," *Biochem. Biophys. Res. Comm*., 25, 60 (1966).

G. Neil, C. Niemann and G. E. Hein, "Structural Specificity of α-Chymotrypsin: Polypeptide Substrates," *Nature*, 210, 903 (1966).

R. A. Wallace, R. L. Peterson, C. Niemann and G. E. Hein, "Activation of Chymotrypsin Catalyzed Hydrolyses by 9-Aminacridine," *Biochem. Biophys. Res. C*., 23, 346 (1966)

J. B. Jones, C. Niemann and G. E. Hein, "The Specificity of α-Chymotrypsin: Derivatives of D-Valine and D-Norvaline," *Biochemistry*, 4, 1735 (1965).

J. B. Jones, T. Kunitake, C. Niemann and G. E. Hein, "The Primary Specificity of α-Chymotrypsin: Acylated Amino Esters with Normal Alkyl Side Chains," *J. Am. Chem. Soc*., 87, 1777 (1965).

G. E. Hein, “Die Kinetik der Wirkung von Effectoren auf stationäre Fermentsysteme” (book review), J. Am. Chem. Soc. **85** 3315 (1963).

G. E. Hein and C. Niemann, "Steric Course and Specificity of α-Chymotrypsin Catalyzed Reactions, II," *J. Am. Chem. Soc*., 84, 4495 (1962).

G. E. Hein and C. Niemann, "Steric Course and Specificity of α-Chymotrypsin Catalyzed Reactions, I," *J. Am. Chem. Soc.*, 84, 4487 (1962).

G. E. Hein, "Multi-Step Mechanisms for Cholinesterase Activity," *Nature*, 193, 1155 (1962).

G. E. Hein and C. Niemann, "An Interpretation of the Kinetic Behavior of Model Substrates of α-Chymotrypsin," *Proc. Nat'l. Acad. Sci.*, 47, 1341 (1961).

P. A. S. Smith and G. E. Hein, "The Alleged Role of Nitroxyl in Certain Reactions of Aldehydes and Alkyl Halides," *J. Am. Chem. Soc*., 82, 5731 (1960).

G. E. Hein, R. B. McGriff and C. Niemann, "An Inversion of the Usual Antipodal Specificity in α-Chymotrypsin Catalyzed Reactions," *J. Am. Chem. Soc*., 82, 1830 (1960).