

VITA

Personal Data

Name: Vernon James Hurst

Date and Place of Birth: 18 July 1923, Glenmore, Georgia

Family: Wife, Julia N. Hurst

Son, Marc V. Hurst

Daughter, Karen A. Hurst

Residence: 445 Westview Drive, Athens, Ga., 30606

Business address: Geology Department, University of Georgia
Athens, Georgia, 30602

Armed Service: January 29, 1943 to February 28, 1946 –
combat European Theatre; occupation in Pacific Theatre – Honorable
discharge.

Undergraduate and Graduate Education

Schools: University of Georgia
University of South Dakota
University of Nebraska
University of Alaska
South Dakota State College
Emory University
Johns Hopkins University

Degrees: BS, Geology, 1951, University of Georgia
MS, Geology, 1952, Emory University
Ph.D., Geology, 1954, Johns Hopkins University

Specialized Training: Experimental Petrology (Guest Investigator at the Geophysical Lab
of the Carnegie Institution, Washington D. C., for two years)
Crystal Growth
Clay Technology
Electron Microscopy
Optical Spectrography

Languages: German
French
Spanish
Portuguese

Professional Affiliations:

Fellow – Geological Society of America
Mineralogical Society of America (Associate editor 1965-66, 1967-68)

Member-Society of Economic Geologists
Clay Minerals Society
Assoc. Internationale pour E'tude des Argiles
Senckenbergische Naturforschende Gesellschaft
American Association for Advancement of Science
American Association of Crystal Growth
Fine Particle Society
Southeastern Electron Microscopy Society

Past-Geochemical Society
Sigma XI
Georgia Academy of Science (President 1962-63, 1963-64)
Georgia Geological Society (President 1962-1963), Councilor, 1964-65
Geologische Vereinigung
Societe francaise de Mineralogie et Cristalographie
Geological Society of Washington
Southeastern Association of Spectrographers
Canadian Mineralogical Society

Honor Society: Phi Kappa Phi

International Award: Pioneer in Clay Science Award. Presented at a joint meeting of the Clay Minerals Society and the Mineralogical Society in June 2003.

Academic Appointments

University of Georgia
- 1990, Emeritus Research Professor of Geology
1990 - 1969, University Research Professor
1970 - 1966, Chairman of Physical Sciences Division
1969 - 1963, Professor Geology & Head of Geology Dept.
1963 - 1962, Associate Professor of Geology and Head of the Geology Department
1961, Head (and founder) of the Geology Department.

PUBLICATIONS

Papers, booklets and books

Schroeder, P.A., Pruet, R.J., and Hurst, V.J. 1998. Effects of secondary iron phases on kaolinite ²⁷AL MAS NMR spectra: Clays and Clay Minerals. 46:429-435.

Hurst, V.J., Schroeder, P.A., and Styron, R.W. 1997. Accurate quantification of quartz and other phases by powder x-ray diffractometry: Analytica Chimica Acta. 337:233-252.

- Hurst, V.J. and Pickering, S.M. 1997. Origin and classification of Coastal Plain Kaolins, Southeastern USA, and the role of groundwater and microbial action: *Clays and Clay Minerals*. 45:274-286.
- Pickering, S.M., Hurst, V.J., and Elzea, J.M. 1997. Mineralogy, stratigraphy, and origin of Georgia Kaolins, Field Excursion F4 Guidebook, 69 pages. 11th International Clay Conference, Ottawa, Canada.
- Hurst, Vernon J. 1997. Origin of kaolins and bauxites: Chapter 2 in Field Excursion Guidebook F4, 11th International Clay Conference on Mineralogy, Stratigraphy and origin of Georgia Kaolins, pp. 32-46.
- Elzea, J., Rice, S.B., and Hurst, V.J. 1997. Oxidation of a kaolinitic clay bed in pleistocene (?) age strata from Coastal Plain Sediments, Georgia, USA: Program with Abstracts, 11th International Clay Conference. Ottawa, Canada, and 34th Annual Meeting of the Clay Minerals Society, Abstract A25.
- Barker, W.W. and Hurst, V.J. 1993. Freeze-etch replication of extracellular bacterial polymers adsorbed onto Kaolinite. Proceeding of 51st Annual Meeting of Electron Microscopy Society of America, G.W. Barley & C. L. Rieder, eds. pp 92-93. San Francisco Press.
- Hurst, Vernon J., Hardy, Robert E., Barker, William, Farmer, Mark A., and Hyder, W. J. 1992, Direct visualization of particle disposition in kaolin slurries undergoing high shear: Proceedings of the 1992 Coating Conference, Orlando, pp. 361-372.
- Hardy, Robert E., Hurst, V. J., Barker, William, and Farmer, Mark A. 1992. Direct visualization of particle disposition in kaolin slurries undergoing high shear. *TAPPI Journal*, pp. 151-158.
- Barker, William W. and Hurst, Vernon J. 1992. Bacterial trace fossils in Eocene kaolin of the Huber Formation of Georgia: *Phylloderma microsphaeroides*, n. ichnogen., n. ichnosp.: *Ichnos*, vol. 2, pp. 55-60.
- McCaskey, P.C., Rigsby, W.E., Hinton, D.M., Friedlander, L., and Hurst, V.J. 1991. Accumulation of 2,8 dihydroxyadenine in bovine liver, kidneys, and lymph nodes: *Vet. Pathology* 28, 99-109.
- Hurst, Vernon J. and Pickering, S.J., Jr. 1991. Significance of crystallite size and habit determining origin and industrial applications of Georgia kaolins. *Proc. of Symposium on Econ. Geology of S.E. industrial minerals*. 63-79.
- Hurst, Vernon J. 1990. Gold in East-central Georgia: *Ga. Geol. Survey Bull.* 112, 49 pages, 2 fold-out maps in color. (Booklet)

- Hurst, Vernon J., Kremer, Thomas, and Bush, Parshall B. 1990. A geochemical reconnaissance for gold in East-central Georgia: Ga. Geol. Survey Information Circular 83, 18 pages, 2 fold-out maps in color. (Booklet)
- Hurst, Vernon J. and Pickering, S.M. 1989. Significance of crystallite size and habit in determining origin and industrial applications of Georgia kaolins. GSA Abstracts with Programs, SE Section, 38th annual meeting, 21, p 22.
- Hurst, Vernon J. and Pickering, Sam M. 1989. Cretaceous-Tertiary strata and kaolin deposits in the inner Coastal Plain of Georgia, in Upper Cretaceous and Cenozoic Geology of the Southeastern Atlantic Coastal Plain, Excursion guide for the 28th International Geological Congress: Amer. Geophysical Union, p. 1-22.
- Harris, W.B., Hurst, V.J., Nystrom, P.G. and Ward, L.W. 1989. 28th International Geological Congress, Upper Cretaceous and Cenozoic geology of the southeastern Atlantic Coastal Plain, Field Trip Guidebook T172, 100 pages.
- Pickering, Sam M. and Hurst, Vernon J. 1989. Commercial kaolins in Georgia, occurrence, mineralogy, origin, use, in Excursions in Georgia Geology, W. J. Fritz, editor: Ga. Geol. Soc. Guidebooks, vol. 9, No. 1, p. 29-75.
- Hurst, Vernon J., Kremer, Thomas, and Bush, Parshall B. 1989. A geochemical reconnaissance for gold in East-central Georgia: Ga. Geol. Survey Information Circular 83, 18 pages, 2 foldout maps in color. (Booklet).
- Hurst, Vernon J. 1989. Gold in East-central Georgia: Ga. Geol. Survey Bulletin.
- Rigsby, W. E., Hinton, D. M., Hurst, V. J., and McCaskey, P. C. 1987. Discovery of intracellular 2, 8 dihydroxyadenine crystals in bovine lymphatic and hepatic cells: Proceedings of the 45th Annual Meeting of the Electron Microscopy Soc. of America, p. 906-907.
- Washam, Clinton, J., Kerr, Thomas J., Hurst, Vernon J., and Rigsby, William E. 1985. A scanning electron microscopy study of crystalline structures on commercial cheese: Developments in Industrial Microbiology. 26:749-761.
- Ainsworth, C. C., Sumner, M. C., and Hurst, V. J. 1985. Effect of aluminum substitution in goethite on phosphorus adsorption. I. Adsorption and isotopic exchange: Soil Sci. Soc. Amer. Jour. 49: 1142-1153.
- Talbert, Gerald R., Hurst, Vernon J., Markewich, Helaine W., Perkins, H. R., Weaver, R. M., and Tan, Kim H. 1985. Morphological, physico-chemical, and mineralogical characteristics of selected soils in Twiggs and Wilkinson Counties, Georgia: Agronomy Department, Univ. of Georgia, 26 pages. (Booklet)

- Hurst, Vernon J. and Kunkle, Albert C. 1985. Dehydroxylation, rehydroxylation, and stability of kaolinite: *Clays and Clay Minerals*. 33:1-14.
- Hurst, J.V. (editor), Kunkle, A.C., Smith, J.M., Pickering, S.M. and Perkins, H.F. 1985. Kaolin and bauxite deposits of the Coastal Plains for Georgia and Alabama. *The Clay Minerals Soc.* 119 pages.
- Hurst, Vernon J. and Rigsby, W.E. 1984. Intergrowths and aggregates of natural kaolinites: *Proceedings of 42nd Annual Meeting, Electron Microscopy Soc. of Amer.*, 422-423.
- Hurst, Vernon J. 1983. Gold resources of Georgia, Phase II report on gold in the East-central Georgia District: *Ga. Geol. Survey Open-file Report*, 6 pages.
- Hurst, Vernon J., Scarborough, C. T., and Plemons, K. D. 1982. Occurrence and origin of gold in the East-central District, Georgia, extended abstract: *Proceedings, Conference on Exploration for Metallic Resources in the Southeast, Center for Continuing Education, Athens, Ga.*, 62-64.
- Hurst, Vernon J. 1982. Gold resources of Georgia, Phase I report on Gold in the East-central Georgia District: *Ga. Geol. Survey Open-file Report 82-7*, 14 pages.
- Washam, C. J., Kerr, T. J., and Hurst, Vernon J. 1982. Microstructure of various chemical compounds crystallized on cheddar cheese: *Jour. Food Protection*. 45:594-96.
- Barker, W. W., Rigsby, W. E., Hurst, V. J., and Humphrey, W. J. 1982. High resolution replication of organoclay surfaces: *Proceedings of Electron Microscopy Soc. of Amer.*, G. W. Bailey, editor, Washington, D.C. 576-577.
- Rodriguez, Orlando, Hemphill, J. Anthony, and Hurst, Vernon J. 1982. Mineralogy of the Twiggs Clay at its type locality, Georgia: *Southeastern Geology*. 23:163-170.
- Hurst, Vernon J., Crawford, Thomas J. and Sandy, John. 1982. Mineral resources of the Central Savannah River Area, Georgia, Vol. I: *Ga. Geol. Survey*, 467 pages. (Second edition of book first published by U. S. Commerce Department in 1966).
- Hurst, Vernon J., Crawford, Thomas J. and Sandy, John. 1982. Mineral Resources of the Central Savannah River Area, Georgia, Vol. 2: *Ga. Geol. Survey*, 231 pages. (Second edition of book first published by U. S. Commerce Department in 1966).
- Hurst, Vernon J. and Crawford, Thomas J. 1982. Exploration for mineral deposits in Habersham County, Georgia: *Ga. Geol. Survey*, 180 pages. (Second edition of book first published by U. S. Government Printing Office, Washington D. C. in 1964).
- McLemore, William H. and Hurst, Vernon J. 1982. Carbonate rocks in the Coosa Valley Area, Georgia: *Ga. Geol. Survey*, 170 pages. (Second edition of booklet first published by U.S. Commerce Department in 1969).

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- Washam, C.J., Kerr, T.J. and Hurst, Vernon J. 1981. Microstructure of Various Chemical Compounds Crystallized on Cheddar Cheese. *Jour. Food Protection.* 45:594-596.
- Hurst, Vernon J. and Storch, Sarah P. 1981. Regional variation in the cell dimensions of metamorphic quartz: *Amer. Min.* 66:204-212.
- Hurst, Vernon J., 1980. Saprolite Mapping, 104 pages. UGA Printing. (Several earlier versions were printed for class notes and field trip guides from 1965 to 1980).
- Hurst, Vernon J. and Styron, Robert W. 1979. Fly ash for use in the industrial extender market: *Proceedings, Fifth International Ash Utilization Symposium, U. S. Dept. of Energy,* pages 90-132.
- Hurst, Vernon, J., in collaboration with A.C. Kunkle, John M. Smith, Sam M. Pickering, Morris E. Moody. 1979. Field Conference on kaolin, bauxite, and fuller's earth: *Clay Minerals Society,* 107 pages. (Booklet).
- Hurst, Vernon J. and Shrum, John W. 1979. Unusual minerals in Georgia: *Rocks and Minerals.* 54: 161-65.
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- Beckman, Kenneth L., Moritz, Harold W. and Hurst, Vernon J. 1979. Synthetic phenacite: *Ga. Acad. Sci. Bull.* 36, 13-15.
- Sumner, M.E., Farina, P.M.W. and Hurst, V.J. 1979. Magnesium fixation – a possible cause of negative yield responses to lime applications: *Commun. in Soil Sci. and Plant Analysis* 9, 995-1007.
- Shrum, John and Hurst, Vernon J. 1979. Light-scanning photomicrography of saprolite: *Ga. Acad. Sci. Bull.,* 37, 83.

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- Hurst, Vernon J., 1977, Visual estimation of iron in saprolite: Geol. Soc. Amer. Bull. 88, 174-76.
- Hurst, Vernon J. and Bosio, Nivaldo J. 1975. Rio Capim kaolin deposits, Brazil. Scientific Communications. 70:990-992.
- Bosio, Nivaldo, J. and Hurst, Vernon J., and Smith, Robert L. 1975. Nickeliferous nontronite, a 15 A garnierite at Niquelandia, Goia, Brazil: Clays and Clay Mins. 23, 400-403.
- Giardini, A.A., Hurst, Vernon J., Melton, C.E., Stormer, J.C., Jr. 1974. Biotite as a primary inclusion in diamond: Its nature and significance: Amer. Min. 59, 783-789.
- Jones, Lois M., Hurst, Vernon J., and Walker, Raymond L. 1973. Strontium isotope composition of amphibolite of the Cartersville-Villa Rica District, Georgia: Geol. Soc. Amer. Bull. 84, 913-918.
- Hurst, Vernon J., Jones, Lois M., 1973. Origin of amphibolites in the Cartersville-Villa Rica Area, Georgia: Geol. Soc. Amer. Bull. 84, 905-912.
- Hurst, Vernon J. 1973. Geology of the Southern Blue Ridge Belt: Amer. Jour. Sci., 273, 643-671.
- Allard, Gilles O. and Hurst, Vernon J. 1972. New tectonic discoveries in Brazil and their counterparts in Gabon, Africa: Amer. Geophy. Union Transactions, 53, 177.
- Hurst, Vernon J. and Long, Sumner, 1971. Geochemical study of alluvium in the Chattahoochee- Flint Area, Georgia: Institute of Community and Area Development, Athens, Georgia, 58 pages and 2 foldout maps in color. (Book).
- Hurst, Vernon J. 1970. The Piedmont in Georgia (Chapter) in Studies in Appalachian Geology, Central and Southern, p. 383-396.
- Hurst, Vernon J. and Crawford, Thomas J. 1970. Sulfide deposits, Coosa Valley Area, Georgia: U.S. Commerce Department, 190 pages and 2 foldout maps in color. (Book).
- Allard, Gilles O. and Hurst, Vernon J. 1969. Brazil-Gabon geologic link supports continental drift: Science 163:528-532.
- McLemore, William H. and Hurst, Vernon J. 1969. The carbonate rocks in the Coosa Valley Area, Georgia: U.S. Department of Commerce, 170 pages. (Book).
- Hurst, Vernon J. 1969. Geochemical anomalies, Coosa Valley area, Georgia: Coosa Valley Area Planning and Development Commission and the Geology Dept., Univ. of Ga., Map in color.

- Hurst, Vernon J. and Needham, Robert E. 1968. Talc deposits in the Coosa Valley Area, Georgia: U.S. Commerce Department, 58 pages and one foldout map in color. (Booklet).
- Cheatum, E.L., Bellinger, Frederick, Hurst, Vernon J., Jackson, Thomas and Odum, Eugene. 1968. Report on the proposed leasing of State-owned lands for phosphate mining: Univ. System of Ga., 170 pages. (Book).
- Hurst, Vernon J., Sandy, John, Holland, Willis, A., and Crawford, Thomas J. 1968. Geologic map of Burke County, Georgia: Central Savannah River Area Planning and Development Commission, Augusta. Scale: 1" = 2 miles.
- Hurst, Vernon J. and Sandy, John. 1968. Geologic map of Richmond County, Georgia: Central Savannah River Area Planning and Development Commission, Augusta. Scale: 1" = 2 miles.
- Hurst, Vernon J., Medlin, Jack H. and Sandy, John. 1968. Geologic map of Jefferson County, Georgia: Central Savannah River Area Planning and Development Commission, Augusta. Scale: 1" = 2 miles.
- Hurst, Vernon J. and Sandy, John. 1968. Geologic map of Jenkins County, Georgia: Central Savannah River Area Planning and Development Commission, Augusta. Scale: 1" = 2 miles.
- Hurst, Vernon J. and Crawford, Thomas J. 1968. Geologic map of Wilkes County, Georgia: Central Savannah River Area Planning and Development Commission, Augusta. Scale: 1" = 2 miles.
- Hurst, Vernon J. and Crawford, Thomas J. 1968. Geologic map of Warren County, Georgia: Central Savannah River Area Planning and Development Commission, Augusta. Scale: 1" = 2 miles.
- Hurst, Vernon J. and Crawford, Thomas J. 1968. Geologic map of Columbia County, Georgia: Central Savannah River Area Planning and Development Commission, Augusta. Scale: 1" = 2 miles.
- Hurst, Vernon J. and Crawford, Thomas J. 1968. Geologic map of McDuffie County, Georgia: Central Savannah River Area Planning and Development Commission, Augusta. Scale: 1" = 2 miles.
- Hurst, Vernon J. and Crawford, Thomas J. 1968. Geologic map of Lincoln County, Georgia: Central Savannah River Area Planning and Development Commission, Augusta. Scale: 1" = 2 miles.

- Hurst, Vernon J. and Crawford, Thomas J. 1968. Geologic map of Taliaferro County, Georgia: Central Savannah River Area Planning and Development Commission, Augusta. Scale: 1" = 2 miles.
- Hurst, Vernon J. and Sandy, John. 1968. Geologic map of Screven County, Georgia: Central Savannah River Area Planning and Development Commission, Augusta. Scale: 1" = 2 miles.
- Hurst, Vernon J., Sandy, John, and Crawford, Thomas J. 1968. Geologic map of Glascock County, Georgia: Central Savannah River Area Planning and Development Commission, Augusta. Scale: 1" = 2 miles.
- Hurst, Vernon J., Holland, Willis A. and Sandy, John. 1968. Geologic map of Emanuel County, Georgia: Central Savannah River Area Planning and Development Commission, Augusta. Scale: 1" = 2 miles.
- Medlin, Jack H. and Hurst, Vernon J. 1967. Geology and mineral resources of the Bethesda Church area, Greene County, Georgia: Ga. Geol. Survey Information Circular 35, 29 pages. (Booklet)
- Salotti, Charles and Hurst, Vernon J. 1966. Clinohumite from Cotopaxi, Colorado. *Amer. Mineralogist*, 51:271
- Hurst, Vernon J. 1966. Patination of cultural flints (Chapter) in *New Roads to Yesterday*, Basic Books, N.Y., 517-530.
- Crawford, Thomas J., Hurst, Vernon J. and Ramspott, L.P. 1966. Extrusive volcanic rocks and associated dike swarms in Central-east Georgia: *Geol. Soc. Amer., SE Section, Guidebook 2*, 53 pages (Booklet).
- Hurst, Vernon J. 1966. Preliminary appraisal of the mineral resources of the Northeast Georgia area: Northeast Georgia Area Planning and Development Commission, 72 pages. (Booklet)
- Hurst, Vernon J., Crawford, Thomas J. and Sandy, John. 1966. Mineral resources of the Central Savannah River area, publ. U.S. Econ. Devel. Admin., Vol. 1-2, 698 pp.
- Hurst, Vernon J. 1965. Apparatus for color sorting: National Bureau of Standards Techn. Note 263, 15-20.
- Milton, Charles and Hurst, Vernon J. 1965. Subsurface "basement" rocks of North America: *Ga. Geol. Survey Bull.* 76, 56 pp. (Booklet)
- Hurst, Vernon J. and Sandy, John. 1965. Marl in Burke County, Georgia: U.S. Commerce Department, 54 pages. (Booklet)

- Hurst, Vernon J. and Sandy, J. 1964. Marl in Burke County, Georgia: Geology Dept., Univ. of Ga., 18 pp. + Map.
- Vernon, Hurst J. 1964. Geologic study of the Bell Mountain silica deposit, ... Area Redevel. Adm., Contract No. Cc-6094, final report. 1-8.
- Vistelius, Andrew B. and Hurst, Vernon J. 1964. Phosphorus in granitic rocks of North America, *Geol. Soc. Amer. Bull.* 75:1055-1092.
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- Hurst, Vernon J. and Otwell, William L. 1964. Exploration of mineral deposits in White County, Georgia, Ga. *Geol. Survey Bull.*, 166 pp. + Maps (Booklet).
- Hurst, Vernon J., Buie, B.R., Ritchie, F.T. 1963. Field Trip Itinerary, 12th National Clay Minerals Conference, National Academy of Science, National Research Council, 14 pages.
- Hurst, Vernon J. 1963. Geochemical studies in Habersham and White Counties, Georgia: *Ga. Acad. Sci. Bull.* XXI, 12.
- Hurst, Vernon J. and Porter, Katherine E. 1963. Lithiophorite from Hall County, Georgia: *Ga. Acad. Sci. Bull.* XXI, 12.
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- Hurst, Vernon J. 1962. Dating methods – flints, Artifacts. *Encyclopedia of Science and Technology*, McGraw-Hill, 193-194.
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- Hurst, Vernon J. and Kelly, A.R. 1961. Patination of cultural flints: *Science* 134:251-256.
- Hurst, Vernon J. 1960. Monazite-bearing pegmatites in South Georgia Piedmont: *Econ. Geol.* 55:610-613.
- Hurst, Vernon J. 1960. Oil tests in Georgia: *Ga. Geol. Survey Information Circular* 18, 14 pages with color map. (Booklet)

- Hurst, Vernon J. 1960. Status of lithologic mapping in crystalline rocks of Georgia: Ga. Acad. Sci. Bull. XVIII, 14.
- Hurst, Vernon J. 1960. Strontium in the dolomite-marble of the Brevard Belt: Ga. Acad. Sci. Bull. XVIII, 15.
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- Hurst, Vernon J. 1955. Prospecting for Uranium in Georgia, Part 11, Ga. Mineral Newsletter, Vol. VIII, p. 11-19.
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Book Reviews

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- Hurst, Vernon J. 1971. The Precambrian: *Geotimes* 16, 33.

Abstracts

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- Renner, James F. and Hurst, Vernon J. 1988. Clay mineralogy of the Rockmart Slates: Evidence for pre-Alleghenian metamorphism in the Valley and Ridge Province, Polk County, Georgia: *Abstracts, Clay Min. Soc., 25th Annual Meeting*, p. 56.
- Rigsby, W.E., Hinton, D.M., Himmelsbach, D.S., and Hurst, Vernon J. 1988. Identification of intracellular crystals in bovine tissues: *Proceedings of Southeastern Electron Microscopy Soc.*, 10, 35.
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Schroder, Charles H., Hurst, Vernon J. and Frey, Robert W. 1980. Sedimentologic and diagenetic significance of trace fossils in kaolin-bearing and overlying sediments, East-central Georgia: Geol. Soc. of Amer., Abstracts with Programs, p. 518.

Major Unpublished Technical Reports

Light scatter by kaolin.

Pyrite-pyrrhotite deposits in Paulding, Carroll, and Haralson counties, Georgia.

Gossans in the Cartersville District, Georgia.

Heavy minerals on Cumberland Island, Georgia.

Hydrothermal modification of kaolinitic clays.

Heavy minerals near Folkston, Georgia.

Emerald deposits at Muzo and Chivor, Colombia, S.A.

Geology of the Epworth Quadrangle, Georgia.

Marble of the Brevard Belt, Georgia.

Low-magnesia limestones for Portland cement manufacture in Polk, Floyd, and Bartow Counties, Georgia.

Soledad Mountain-Viento Frio Maganese deposits, Panama.

Mineral resources of Panama.

Precious opal deposits of Erandique, Honduras.

Lead deposits of Brooks Mountain, Seward Peninsula, Alaska.

Occurrence and separation of iron in kaolin.

Hydrothermal modification of kaolinitic clays, volumes 1-3.

Gray kaolin research

Patents

Hurst, Vernon J. 2000. Processing for Transforming Previously Unusable Clays and Kaolin Clays to Low Viscosity Pigment (Morgan & Finnegan LLD), U.S. Patent No. 6,156,284.

Hurst, Vernon J. and Styron, Robert W. 1978. Fly Ash Beneficiation Process, U.S. Patent No. 4,121,945, 12 pages.

Hurst, Vernon J. 1973. Hydrothermal Transformation of Kaolin: U.S. Patent 3,769,383.

Hurst, Vernon J. 1973. Viscosity Reduction of Kaolin by Hydrothermal Treatment: U.S. Patent 3,765,825.

Hurst, Vernon J. 1973. Continuously Operable Hydrothermal Apparatus and Process: U.S. Patent 3,322,521.

Hurst, Vernon J. was Major Professor of the Following Graduate Students

Ph.D. Completed

William W. Barker
John H. Grove
Lewis F. Rogers
Roger S. Austin
Orland Rodriguez*
Brian Schumacker*
Robert B. Cook
Gaber Al-Sanabani

M.S. Completed

Robert Horwath
Nathan Melear
James F. Renner
James F. Durrett, III
Michael Moskow
David Poe
Tracy Jones
Mark Potts
Thomas Kremer
Buford Pollett
Kenneth D. Plemons
Charles T. Schborough
Philip L. Manning
James C. Redwine

Charles S. Fowler*
Charles H. Schroder
Jack H. Medlin
William H. McLemore
Robert E. Needham
Roger S. Austin
Robert B. Cook
Benjamin G. Martin
William B. Simmons, Jr.
Otis C. Malcolm
John Dodge
Andrew Lowe

*Co-major professor, in Agronomy.

Extra-academic, Professional Activities (compiled only to 1985).

- 1985-1963 – Chairman, Geology Group, University Center in Georgia.
1985-1984 – Lecturer for the Englehard Corporation, five special lectures to research personnel at Menlo Park, NJ, and production engineers and chemists at McIntyre, Georgia, on the “Origin, Mineralogy, and Processing of Kaolins”, presented 12/5/84, 12/12/84, 1/8/85, 2/13/85, and 2/20/85, 32-39 attending.
1978 - Lecturer for the Bendix Field Engineering Corporation, five days of lectures beginning Jan. 16th, Atlanta, to 16 professional geologists assembled by Bendix. Subject: “Weathering and Saprolite Mapping”.
1976-1966 President, International Geochemical Industries, Inc.
1975 Two days of special lectures on weathering at the U.S. Geological Survey, National Center, Reston, Virginia.
1975-1979 Consultant to the U.S. Geol. Survey and Companhia de Pesquisa de Recursos Minerais, 6 weeks of special lectures and field demonstrations on weathering and saprolite mapping in the State of Minas Gerais, Brazil, for geologists of the Brazilian Department of Mines and Energy.
1974-1975 Member, Scholarship Committee, Eastern Federation of Mineralogical and Lapidary Societies.
1974 Consultant to the U.S. Geol. Survey, 5 weeks of advanced lectures and field demonstration on weathering and saprolite mapping in the Quadrilatero Ferrifero, Minas Gerais, Brazil, for geologists of the Ministry of Mines and Energy.
1973 Consultant to the U.S. Geol. Survey, Office of International Geology, to present Advanced Course on Field Geology in Goias, Brazil, to 22 professional geologists selected by Companhia de Nacional da Producao Mineral.
1973-1947 Various geologic exploration projects, days-weeks duration, in Honduras, Columbia, Panama, Alaska, Puerto Rico.

1970 Participant in International Field Institute to the Caribbean, American Geological Institute

1970-1959 President, Research and Analysis, Inc.

1970-1972 Trustee of Coastal Plains Center for Marine Development Services

1969-1970 Member, Research Program Development Committee for Marine Sciences, Univ. of Georgia

1967-1972 Member of Marine Resources Advisory Committee of Coastal Plains Regional Commission (appointed by Governor)

1967-1968 Member of Environmental Sciences Advisory Committee of NSF

1967-1969 Chairman of sub-committee on Programmatic Research for NSF

1967-1968 Gave 6 professional lectures off campus

1966-1972 Delegate, Universities Council on Water Resources

1966-1969 Member, Chancellor's Advisory Committee on Mineral Leasing of State lands (Georgia).

1966-1970 Member of Environmental Sciences Advisory Committee of NSF

1966-1967 Gave 5 professional lectures off campus

1965-1966 Served as Member of course content and sequence panel of Councilor Education in the Geological Sciences.

1965-1966 Chairman, Geol. Soc. Amer., SE Section

1965-1966 Chairman, Board of Governors, Center for Research in College Instruction of Science and Mathematics

1965-1966 Visiting Scientist for American Geological Institute

1965-1969 Associate Editor, American Mineralogist

1965-1966 Gave 13 professional lectures off campus

1964-1965 Councilor, Ga. Geol. Soc.

1964-1965 Vice chairman of Interim Organizing Committee (Center for Research in College Instruction of Science and Mathematics).

1964-1965 Member of course content and sequence panel of Councilor Education in the Geological Sciences.

1964-1965 Gave 14 professional lectures off campus.

1963-1971 Member, Marine Institute Advisory Board, Univ. of Georgia.

1963-1964 President, Ga. Acad. Of Science

1963-1964 President, Ga. Geol. Society

1963-1964 Served as session chairman & field trip moderator for the 12th Nat'l Clay Minerals Conference

1963-1964 Served as chairman of program committee, Sigma Xi.

1963-1964 Gave 24 professional lectures off campus

1963-1962 Economic Geology Consultant to Republic of Panama.

1962-1963 Pres.-elect, Ga. Acad. Of Science

1962-1963 Pres.-elect, Ga. Geol. Society

1962-1964 Gave 11 professional lectures away from campus

1961-1962 Chairman, Geologic Society of America, SE section.

1961-1956 Geologist and Chief Mineralogist, Georgia Department of Mines, Mining and Geology.

1951 Exploration Geologist, New Jersey Zinc Company.

1950-1946 Building contractor (Multistory offices, apartments, and houses), Alaska.

Awards and Honors

Invited to present my research on clays to the American Chemical Society, at a “Symposium on Physical and Chemical Properties of Colloidal Particles,” Annual Meeting, 1982.

Citation “in recognition of Significant contribution to the research program of the University of Georgia,” 1979.

“Distinguished Achievement Award in the Field of Earth Sciences,” American Federation of Mineralogical and Lapidary Societies, 1974.

Special Commendation by Governors of North Carolina, South Carolina, and Georgia for service to the Coastal Plains Regional Commission, 1970.

Other Professional Activities

As in previous years, I am called upon by an uncomfortably large number of individuals, companies, and other institutions for information or assistance with their problems. This has tended to increase each year for two reasons: a lengthening record of having helped previously, and growing need for up-to-date technical assistance by corporate and governmental groups.

Most of the requests begin with a phone call. Some end after one or a few calls. Some involve a meeting, a letter or short report, a check of old records, an XRD pattern, interpretation of XRD and EM data, etc. Refusing these interactions is hardly feasible, considering the importance of science and technology in modern society. The total time and effort spent this way has been appreciable.

This kind of effort tends to be overlooked when performance is being evaluated – many professors are hardly called upon this way – but I believe it is as much a part of University functions as classroom instruction, student advising, lectures at other institutions, proposal and paper reviews, professional committees, etc.

This kind of information disclosure was gradually discontinued by me after 1990 as it became apparent from my presentations abroad about the origins of Earth and Life were too frequently adopted and published without any acknowledgement of my role in their development.

Accordingly, my scientific disclosures were gradually discontinued and concentrated on irrefutable facts about the origins and evolution of Earth and Life.

Since then, the true facts about the origins and evolutions of Earth and Life have been deciphered from the petrologic record, which is the only scientifically reliable record.