

Preface to the Special Issue dedicated to George Devries Klein by the Journal of the Indian Association of Sedimentologists (JIAS)

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The Journal of the Indian Association of Sedimentologists (JIAS) published its first online issue on June 30, 2018. It is available on www.indiansedimentologists.com. In that issue, an extended tribute to G. D. Klein by Shanmugam (2018a) was published. The tribute was widely received by the global geosciences community. Consequently, the Managing Editor and the Editorial Members have decided to publish a special Issue dedicated to George Devries Klein in celebrating his life and achievements. This

special issue is the product of that effort. We have selected five articles from a pool of 15 submitted contributions for this issue that closely reflect Klein's research interests. The five topics are (1) climate change (Gerrit J. van der Lingen), (2) deep-water processes (G. Shanmugam), (3) petroleum geology (Naresh Kumar), (4) Diagenetic evolution of onshore Campanian Sandstone (Sargam Chatterjee, R. Nagendra and Malli Vijay) and (5) Gondwana basins of extra-peninsular eastern India (Hrishikesh Baruah, Ranjeeta Kar, Sarat Phukan, Pradip Kumar Das, Manab Deka,

Tulika Dey). A biographical sketch of Klein is summarized in Table 1. JIAS has managed to publish this Special Issue on December 31, 2018, in just eight months after Klein's passing on April 30, 2018. In addition, this issue includes memorials to Professors Virendra

Kumar Srivastava (S M Casshyap and M. Raza), Robert Louis Folk (Kitty Milliken, Earle McBride and Lynton Land), and Robert Henry Dott, Jr. (Marjorie A. Chan and Steven G. Driese).

Table 1. A biographical sketch of George Devries Klein (1933-2018). Compiled from Klein et al. (2018) and Shanmugam (2018a and 2018b).

Introduction		
George Devries Klein was an iconic sedimentary geologist. He was one of the foremost sedimentary geologists in the world on the application of many facets of earth science. He was an accomplished process sedimentologist, sequence stratigrapher, sandstone petrologist, tectonics specialist, basin analyst, regional geologist, petroleum geologist, and climate scientist.		
Subject	Date	Details
Born	January 21, 1933	The Hague, the Netherlands
Died	April 30, 2018	Guam
Family immigration	1939	From the Netherlands to Australia
Family immigration	1947	From Australia to the USA and settled in Larchmont, New York
Citizenship	1947-2018	USA
Education		
Primary and junior high school	1943-1946	Scotch College, in Melbourne, Australia
Mamaroneck Senior High School	1947=1950	Mamaroneck, New York, USA
B.A. degree in geology	1954	Wesleyan University, Middletown, Connecticut, USA
M.A. degree in geology	1957	University of Kansas, Lawrence, Kansas, USA
Ph.D. degree in geology	1960	Yale University, New Haven, Connecticut, USA
Doctoral thesis	1960	"Sedimentology and sedimentary petrology of the Triassic of the Maritime provinces of Canada". And he made a reconnaissance of the intertidal flats of the Bay of Fundy.
Doctoral advisor	1957-1960	John E. Sanders
Employment		
Research Geologist	1960-1961	Sinclair Research Laboratories, Inc., Tulsa, Oklahoma, USA
Assistant professor	1961-1963	University of Pittsburgh, Pennsylvania, USA
Assistant professor	1963-1966	University of Pennsylvania in Philadelphia, USA
Tenured Associate professor	1966-1969	University of Pennsylvania in Philadelphia, USA
Associate professor	1970-1972	University of Illinois at Urbana-Champaign, Illinois
Full professor	1972-1993	University of Illinois at Urbana-Champaign, Illinois. Retired as Professor Emeritus in 1993.
Supervisor of Ph.D. and M.S. degree students	1970-1993	Ph.D. students : 7 External Ph.D. students : 5 M.S. students : 14

Executive Director	1993-1996	New Jersey Marine Sciences Consortium and director of the New Jersey Sea Grant College, Fort Hancock, New Jersey, USA
Known for his wide spectrum of expertise		He was one of the foremost sedimentary geologists in the world on the application of many facets of earth science. He was an accomplished: 1) process sedimentologist, 2) physical oceanographer, 3) sequence stratigrapher, 4) sandstone petrologist, 5) tectonics specialist, 6) basin analyst, 7) regional geologist, 8) petroleum geologist, and 9) climate scientist.
Selected Scientific Contributions		
Lake sedimentation	(Klein, 1959)	Sedimentary structures in the Blomidon Formation, a Triassic lake deposit
Sandstone petrology	(Klein, 1961)	Depositional environments and sandstone petrology of Triassic sedimentary rocks, western Nova Scotia
Flysch sedimentation	(Klein, 1966)	Dispersal and petrology of sandstones of Stanley-Jackfork boundary, Ouachita foldbelt
Estuarine sedimentation	(Klein, 1967)	Comparison of Ancient and Recent tidal flat and estuarine sediments
Tidal sedimentation	(Klein, 1970, 1971)	Introduction of " Tidalite " facies for the first time. 1970: Depositional and dispersal dynamics of intertidal sand bars 1971: sedimentary model for determining paleotidal range
	Application of Klein's tidalite concept to petroleum reservoirs	Mobil: Estuarine facies, Cretaceous, Sacha Field, Ecuador (Shanmugam et al., 2000) Reliance Industries Ltd.: Submarine canyon-fill facies, Pliocene, Krishna-Godavari Basin, Bay of Bengal, India (Shanmugam et al., 2009)
Resedimented pelagic carbonate and volcanoclastic sediments	(Klein, 1975)	Resedimented pelagic carbonate and volcanoclastic sediments and sedimentary structures in Leg 30 DSDP cores from the western equatorial Pacific.
DSDP Leg 58	(Klein, Kobayashi et al., 1980)	Initial Reports of the Deep Sea Drilling Project, v. 58
Diagenesis	(Klein, 1985)	Sediment diagenesis
Tectonics	(Klein, 1993)	Quantitative Discrimination of Tectonic and Climatic Components of Pennsylvanian Sea-level Change
John E. Sanders	(Klein, 2000)	Research guidelines learned from John E. Sanders
Climate change	(Klein, 2016)	Geological Aspects of Long- and Short-Term Climate Change Relevant to Pacific Tropical Islands

Publications	1959-2009	Most of his contributions are archived at the University of Illinois. Details are available at: https://archives.library.illinois.edu/archon/?p=collections/controlcard&id=2148 His contributions during the period 1959-2009 are: 1) Number of published scientific books and edited volumes: 11 2) Number of published articles: 145 3) Number of unpublished technical reports: 49 4) Number of published review articles and abstracts: 141
Consulting and short courses		
President	1996-2013	SED-STRAT Geoscience Consultants, Inc. Houston, Texas, USA
Short courses	1961-2016	Klein taught popular short courses on sandstone depositional models and basins analysis for AAPG, SEG and other professional organizations. He presented technical talks at meetings throughout his professional life.
Awards, Honors, and notable contributions		
A Visiting Fellowship	1969	Wolfson College at Oxford University, England, UK
Outstanding Paper Award	1970	SEPM (Journal of Sedimentary Petrology), USA
An associateship	1974 and 1983	Centre for Advanced Study of the University of Illinois
A Citation of Recognition	1980	The Illinois House of Representatives, USA
Science Fellowship	1983	The Japan Society for the Promotion of Science Fellowship, Japan
Founding member	1985	Geological Society of America's Division on Sedimentary Geology
Fulbright Fellowship	1989	Fulbright Fellowship to the Netherlands, The Netherlands
The "Lawrence L. Sloss Award" for Sedimentary Geology	2000	Geological Society of America, USA
The "Legend of Sedimentology" Award	2013	The Houston Geological Society, Texas, USA.
Retirement	2013-2018	Guam
Family		
Parents	---	Alfred R.H. and Doris Devries Klein
Spouse at the time of his passing	---	Suyon Cheong Klein, who is originally from Seoul in South Korea
Two sons from an earlier marriage	---	Richard L. Klein of Washington, D.C., and Roger N. Klein of Champaign, Illinois
Sister	---	Mrs. Marianne Mandel of Bethesda, Maryland
Legacy	Forever	In his passing, the global geology community has lost a great scientist, teacher, friend, philosopher, critic, guide, and patriot. In an era of 'groupthink', George Klein represented a rare tribe of free-thinking scientists. Fortunately, he left us with a legacy rich in enduring doctrines that future generations will ever be grateful.

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