

Regional Tectonics And Paleogeographic Evolution of China

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Tectonic domains of greater China are discussed with a summary of stratigraphy, structure and timing of events. Tectonic assemblages include Precambrian and older domains, accretionary complexes, melange and flysch belts, sutures, rifted crust and oceanic crust. Our study also mapped igneous rocks and their chemistry, major structures and deformation timing.

There are several blocks which consist of continental or accretionary crust. The relative positions and interactions of these blocks during Phanerozoic time resulted in development of greater China. Amalgamation of these blocks created an extremely complex mountain system and diverse sedimentary basins. Activity continues to present day with deformation partitioned between thrusting in mountain belts and sliding along great strike slip faults.

There are four major events that play a significant role in the amalgamation of greater China. These are:

- Paleozoic amalgamation of accretion complexes of western and northern China and Mongolia
- Triassic continent/continent collisions during the Indosinian orogeny
- Jurassic-Cretaceous active margin development in eastern China
- Eocene collision of India with Asia which overprinted earlier structures and created new structures that are active today.

This presentation will consist of a model for tectonic evolution of these blocks and reconstruct their paleogeography through Phanerozoic time with special emphasis on western China. Our study includes maps at 1:8 million scale covering six time periods, three in the Mesozoic and three in the Cenozoic.

BIOGRAPHICAL SKETCH



Pinar O. Yilmaz is a geologist, responsible for external technology coordination at Exxon Exploration Company. She received a Ph.D degree in 1981

from the University of Texas at Austin, and a M.A. degree in 1978 from Bryn Mawr College, Pennsylvania, and B.A. degree in 1976 from Hamilton College, New York. Yilmaz worked at Mobil Oil Corporation in Dallas and Denver (1980-1984) before joining Exxon Production Research Company. She transferred to Exxon Exploration Company in 1994 into the Global Studies Group and began her present position in the Technology Department in 1997.

Ms. Yilmaz she is an active member of the HGS, AAPG and GSA. She has been the International Explorationists group technical program coordinator (1985-1992) and chairperson (1990-1992). She served on the HGS Board (1992-1993). At GSA, Yilmaz was president of the International Division and served on several committees. She is a member of the following AAPG committees: International Liaison, Distinguished Lecture, Committee on Committees, Technical Program and House of Delegates. Currently, she is the Technical Program co-chair for the 1998 AAPG International Conference in Rio de Janeiro.

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