councils will listen to the opinions of the entire membership and will take action that will benefit the majority.

The present Council believes that the society members generally place a high value on their relationship with the A.A.P.G., and that under the new constitution this feeling will be strengthened and extended. The Council looks forward to a new era of greater vigor in the operations of the S.E.P.M. and of a stable and satisfactory cooperation between the S.E.P.M. and the A.A.P.G. S.E.P.M.'s attitude toward the American Geological Institute is one of loyalty and enthusiastic support.

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CHENIER *versus* BARRIER, GENETIC AND STRATIGRAPHIC DISTINCTION

Barrier islands and cheniers are elongate, narrow sand bodies which may appear similar where preserved in the sedimentary record. However, their modes of origin and sequence of development are distinctive. Differentiation of these features is important in the interpretation of the depositional environments, paleogeography, and geologic history of coastal areas.

Chenier development begins with progradation by deposition of clay, silt, and sand. Rapid sedimentation precludes removal of fine material. Progradation is followed by reworking, shore retreat, and formation of a ridge at the head of the beach. Fines are transported seaward and along the shore. Sand is concentrated on the upper beach and over the adjacent marsh, and is transported along the shore, possibly accumulating in areas not actively eroding. The contact of the chenier with marsh and mud-flat deposits is disconformable beneath transgressive sand deposits, but may be intertonguing for laterally transported deposits. Increasing rates of sedimentation reinitiate mud-flat progradation and the sand ridge is left as chenier. Holocene cheniers are commonly less than 15 feet thick.

Barriers originate from a topographic ridge at the head of the beach which subsequently is partly submerged. Lagoonal-marsh sediments are deposited behind the barrier; however, continued subsidence accompanied by transgression may result in a complex intertonguing of barrier and lagoonal-marsh sediments. Barriers also form as spits and may develop seaward from a pre-existing barrier. Repeated spit formation results in the formation of sand bodies enclosed in finer sediments. Barriers, like cheniers, may be eroded, reworked, and moved landward over the adjacent marsh. Barriers predate the lagoonal-marsh sediments, whereas the sand ridge of the chenier develops on, and seaward from, existing marsh and mud-flat deposits.

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MICROFOSSILS FROM SILURIAN OF ENGLAND

This paper is one of a series dealing with worldwide correlation of Silurian beds utilizing microfossils, chiefly Foraminifera, from acid residues. Extensive collections and several publications cover many of the sequences from North America, from West Texas to the Gaspé Peninsula. To correlate these sequences with sections elsewhere, a world-wide collection of samples has been made, supported by a National Science Foundation grant. The present paper is a report on the specimens recovered from all Silurian carbonate rocks in Great Britain with which correlations are to be made from North America, Norway, Sweden, Austria, Czechoslovakia, and Australia. Preliminary examination of the specimens from the Swedish island of Gotland and Scania show that most of the species from these islands are the same as those from England. A few of the species from England, Norway, and Gotland are identical with those from the Arbuckle Mountains, Oklahoma, Kansas subsurface, and central United States, but most of them are new. Nearly all of the arenaceous Foraminifera belong to the family Saccamminidae. Most are attached forms and have brown tests with abundant iron in the cement. These forms have not been described previously. A few species of *Bathysiphon, Hyperammina*, and *Ammodiscus* are the only other genera present. More than 11,000 specimens from England and 3,000 from Gotland have been mounted, providing abundant material for morphologic, evolutionary, and taxonomic study.

In many places conodonts and scolecodonts are associated with arenaceous Foraminifera. Extensive studies and publications on these forms in Europe and North America provide a basis for stratigraphic association of all the microfossils. Such knowledge can be utilized to identify and correlate beds in places where only Foraminifera are present, thus providing an additional tool and means for correlation that previously has not existed.

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DEEP-SEA FANS IN PERMIAN DELAWARE MOUNTAIN GROUP, DELAWARE BASIN, WEST TEXAS AND NEW MEXICO

Ancient deep-sea fans, consisting of channel, overbank, and fringe deposits, are recorded in the Permian Brushy Canyon, Cherry Canyon, and Bell Canyon Formations (Guadalupian) of the Delaware basin.

Sediment economics and depositional processes that characterized the Delaware basin were very similar to those operating in modern continental borderland basins off southern California.

Margins of the Delaware basin were incised by numerous submarine canyons. During times of low-standing sea-level, concurrent with glaciation, large volumes of clastic sediment were prograded across constricted shelf lagoons, swept into heads of submarine canyons by longshore and tidal currents, and introduced into the Delaware basin through the channel-levee-over-bank system. Carbonate production and reef growth ceased on the outer platform. As sea-level rose during de-glaciation, shelf lagoons expanded and the volume of clastic sediment reaching the outer platform progressively diminished; carbonate production and reef growth resumed.

Basinward from the margin, where channels are narrow and deeply incised, channel width increases and amount of incision decreases. *Major flow units* (3–10 feet thick), restricted to deep-sea channels, commonly consist upward from the base of the following units: (a) massive, (b) large current-ripple cross-bedded sets (sand waves), (c) plane-parallel-laminated sandstone, (d) small current-ripple cross-bedded sets, and (e) plane-parallel laminae consisting of sandstone, siltstone, and shale laminae. Both large and small ripples consist predominantly of climbing