

9 6**STRATIGRAPHIC ARCHITECTURE OF FLUVIAL SEQUENCES IN THE
NORTHWESTERN PART OF KYONGSANG BASIN**

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The northwestern part of Kyongsang Basin largely comprises interbedded sandstone and mudstone with local conglomeratic deposits in the basin margin, representing marginal alluvial fans and fluvial depositional environments. The non-marine successions are divided into successive stratigraphic units, each of which is unique in facies assemblages and architecture of sandstone bodies. Two stratigraphic units, i.e., Sinpyong-Anpyong and Jotap units are examined in terms of stratigraphic architecture and its causative processes. Detailed architectural analysis reveals that the channel systems of Sinpyong-Anpyong unit were of braided patterns, whereas those of Jotap unit were dominated by small-scale bedforms. The difference in fluvial styles can be attributed to the changes in amount and caliber of sediment load and water discharge, which might have been ultimately governed by basin tectonics, climate, and base level. Along with the marked change in fluvial style, the two successive units show repeated expansions of distal, water-logged floodplains and lacustrine facies in the basal and uppermost parts of Sinpyong-Anpyong unit, where the proportion of channel sandstone bodies is relatively low. These stratigraphic intervals are succeeded by the sequences with proximal, well-drained floodplain facies and relatively coarser-grained channel sandstone bodies of higher proportion, reflecting the progradation of proximal systems (the middle part of Sinpyong-Anpyong unit and Jotap unit). The overall stratigraphic architecture can be ascribed to the fluctuations in accommodation space and sediment supply induced by repeated basin subsidence.