

## IX. CORED MATERIAL

*Eiichi Honza and Makoto Yuasa*

Seven piston cores and four rock cores were taken during the cruise. One piston core was taken in the Oki Trough (P124), one in the Yamato Basin (P127), and two in the Japan Basin (P129, 130). These core were taken in order to ascertain the sedimentary sequences in the sea basins. Three piston cores (P125, 126, 128) and two rock cores (RC24, 25) were also selected to ascertain the composition of outcrops of the lower sedimentary layers on the slopes of highs around Yamato Ridge. Two further rock cores (RC22, 23) were selected to obtain sedimentary rocks from the Kita-Oki Bank and the shelf off Hokuriku.

St.1082, P124, 397cmL; Almost the whole of the core is composed of a homogeneous, clayey material intercalated with a few thin ash bands and a foraminifera bed.

St.1087, P125, 467cmL; The core is largely composed of a homogeneous clayey material intercalated by an ash band and several blackish pockets.

St.1095, P126, 370cmL; The core is composed of sandy material intercalated by sandy silt beds in the upper part of the column. Very coarse to granule grade sand are predominant in the lower part of the column. Granule to pebble grade are common in the lowermost part of the column.

St.1097, P127, 570cmL; Almost the whole of the core is composed of an olive grey, clayey material intercalated with an ash band and two thin foraminifera beds. Many thin olive brown beds are observed in the middle part of the column.

St.1116, P128, 551cmL; In the upper part of the core, alternations of a homogeneous clay and a tuffaceous clay intercalated with a few ash bands are found. The lower part is composed of a greenish white and brown clay with diatomaceous, glauconite pockets. A few ash crusts are intercalated and a microfault crosses the upper part of the column.

St.1119, P129, 505cmL; The upper part of the core is composed of a homogeneous, dark grey clay while in the lower part alternations of brown, dark brown, creamy grey and grey clays occur.

St. 1123, P130, 505cmL; The uppermost part of the core is composed of a homogeneous, dark olive, clay with an ash crust. In the middle and lower parts of the column a homogeneous medium olive clay with black pockets occur. Ash bands and black beds are intercalated in the lower part of the column. A graded bed from very fine grained sand at the base of the bed and a coarse silt bed are observed in the upper part of the column.

St.1108, RC24, 214cmL; Almost the whole of the core is composed of an olive grey to bluish grey clay intercalated with an ash and a dark pocket.

St.1111, RC25, 210cmL; The upper part of the core is composed of light bluish grey, tuffaceous clay intercalated with a few ash beds. In the lower part of the column alternations of dark and light grey clays with light bluish grey pockets are found.

Low energy sedimentary environments are suggested in the Oki Trough and in the southwestern part of the Yamato Basin although this interpretation is based only on one core from each of the basin. Cores P126, 127, 128, RC24 and RC25 were selected to

ST.1082,P124 ST.1087,P125 ST.1095,P126 ST.1097,P127 ST.1116,P128 ST.1119,P129 ST.1123,P130 ST.1108,RC24 ST.1111,RC25  
 1780m 2725m 640m 3012m 1835m 3230m 3700m 2155m 1653m

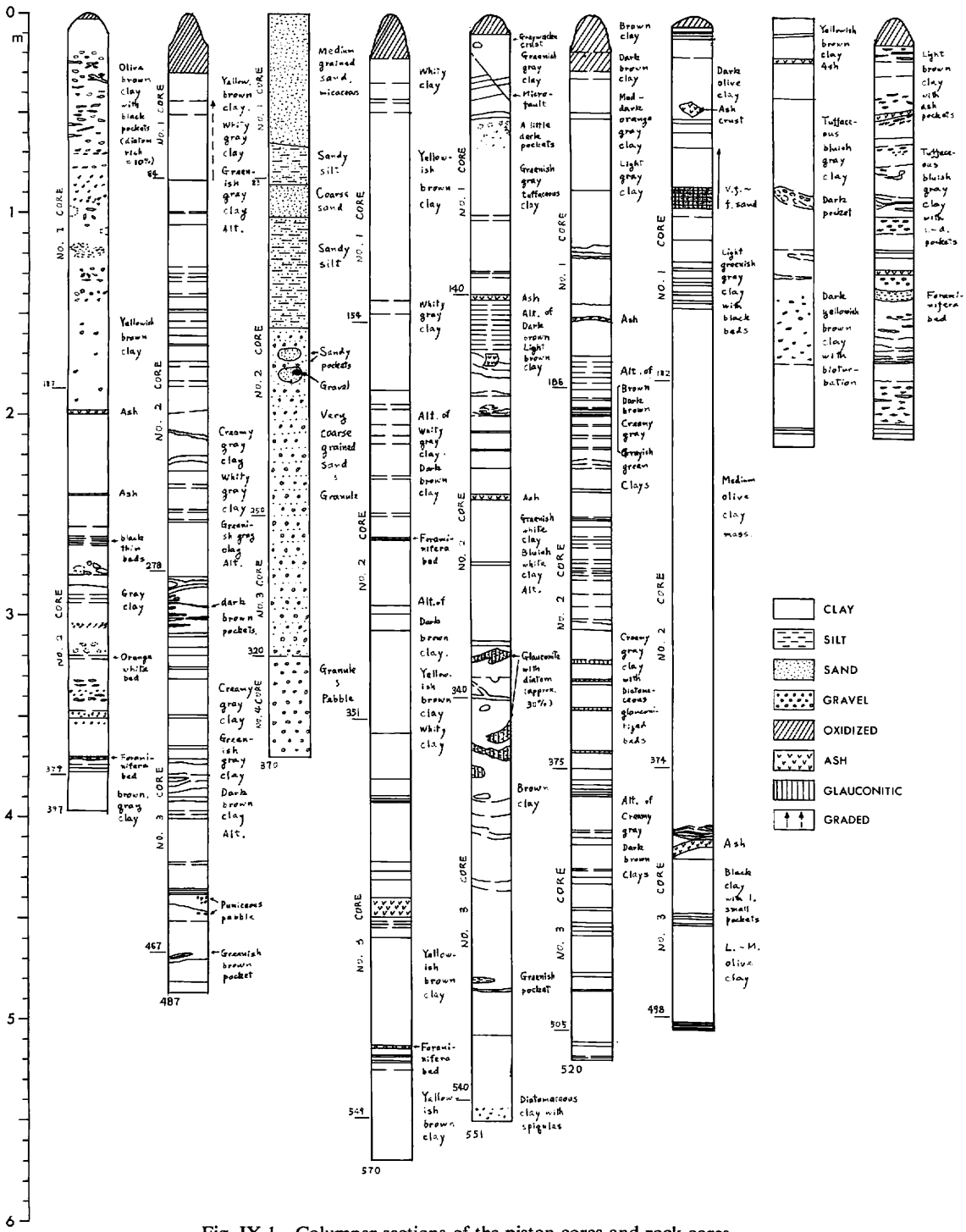


Fig. IX-1 Columnar sections of the piston cores and rock cores.

ascertain the composition of outcrops in the lower layers of the mid-slope of the Yamato Ridge. Fine material was generally obtained except in P126 which revealed coarser material up to pebble size. A graded bed was observed in the core from the Japan Basin. An observation which is commonly made in cores obtained from this Basin (HONZA *et al.*, 1977; LUDWIG *et al.*, 1975). Turbidites which were rarely observed in cores of the surveyed area are most common in the central and eastern side of the Japan Basin which were suggested to be supplied from the Siberian coast (HONZA *et al.*, 1977; Chapter II in this volume).

#### References

- HONZA, E., KAGAMI, H., and NASU, N. (1977) Neogene geological history of the Tohoku Island Arc. *Jour. Oceanograph. Soc. Japan*, vol. 33, p. 297–310.
- LUDWIG, W. J., MURAUCHI, S., and HOUTZ, R. E. (1975) Sediments and structure of the Japan Sea. *Bull. Geol. Soc. Amer.*, vol. 86, p. 651–664.