Thus the parent ^{22}Na presumably was located in spinel[1], in a carbonaceous substance[2] and in apatite — the reasons for these diverse associations are not yet forthcoming.

Whilst the existence of a material which predates the Solar System is appearing more and more likely from Ne-E studies, the possibility that the Allende meteorite contains inclusions with ages up to 5,200 Myr — half a billion years older than the Solar System — appears to be receding. Employing the simple but elegant method of measuring the gas after irradiation, in a sealed ampoule, J.C. Huneke and I.M. Villa (Caltech) succeeded in showing that exceptionally high losses of ^{39}Ar (up to 65 per cent) can occur from fine grained Allende inclusions, probably by diffusion after recoil out of the fine grains into the grain boundary voids. E. Jessberger (Max-Planck-Institut für Kemphysik, Heidelberg), speaking on behalf of the group which reported the 'aged' Allende inclusions[3], stated that appropriate repeat measurements would be performed with the added precaution of shielding from thermal neutrons in case these have some detrimental effect.

Changing views on the origin of Ca-Al rich inclusions in Allende and other carbonaceous chondrites were made clear by the reception given to G. Kurat's invited lecture. Eight or ten years ago, an origin by condensation was almost totally accepted for high temperature inclusions. Kurat (University of Vienna) was one of the few dissenters. Now, origins as melts, condensates and residues from evaporation are all considered, depending on the relevant chemical and textural characteristics of each.

There was much debate on the validity and refinement of estimates of cooling rates of meteorites based on different techniques[4]. Such information may be useful in determining minimum sizes for the parent planets of meteorites. K.H. Esbensen and V.F. Buchwald (Technical University of Denmark) showed that a 20 ton iron of the Cape York shower had formed by fractional crystallization from an Fe-Ni-S-P liquid down to about 700°C. Moreover, some of the products had not been significantly altered by solid state diffusion during subsequent cooling. Considerable chemical variation among the Cape York shower was described (D.J. Malvin and colleagues, UCLA), arguing against formation by simple fractional crystallization whilst part of the small planetary core thought to have been parental to all irons of group IIIAB.

R. Hutchison *et al.* (British Museum) defended their hypothesis[5] of hot accretion and rapid cooling for the formation of H-group chondrites, one aspect of which was questioned by J. Willis and J.I. Goldstein[6] (Lehigh University). A discrepancy between the metallographic cooling-rate (0.5°C Myr^{-1}) and the Pu-fission cooling rate (> 3.8°C Myr^{-1}) of the Marjalahti pallasite was announced by P. Pellas and colleagues (Museum d'Histoire Naturelle, Paris). If the latter is confirmed it would remove the inconsistency of the planetary core (IIIAB irons) seeming to have cooled faster than the core/mantle interface (main group pallasites) which is its outer boundary.

The importance of recent Antarctic meteorite finds provided a recurrent theme of the meeting. Collections of samples from areas of blue ice on the Antarctic continent by US and Japanese expeditions seemed to be offering meteoriticists guaranteed employment for some time to come. As detailed studies have got under way, however, it transpires, not unexpectedly, that many samples are paired and are thus representative of meteorites which fragmented[7]. Both S.G. McKinley (Albuquerque) and M. Honda (Tokyo) provided invaluable pairing information which should save colleagues unnecessary duplication.

The recovery and mechanisms of concentration of Antarctic meteorites were discussed by L. Schultz *et al.* (Mainz) and J. Annexstad (Johnson Space Center, Houston). One factor is wind, which can blow masses of up to 20 g across bare ice, to be concentrated at the snow covered margin. Earlier hopes of obtaining a supply of unweathered meteorites from Antarctica have been dashed over the past few years. An example was presented of a small, dark stone sitting in a pool of water, although the air temperature was -20°C! However, as long as samples are unweathered, even though they may have spent a lengthy period on the ice cap before recovery, they may be considered as uncontaminated in terms of trace elements, like museum specimens observed to fall and immediately collected and carefully preserved (M.E. Lipshutz, Purdue).

Another facet of the paper by Honda was that the terrestrial ages of Yamato meteorites range from 10^4 to 7×10^5 years, the mean life of an Antarctic meteorite probably being about 2×10^5 years. Our sample of ancient meteorites from Antarctica is essentially the same as that from the rest of the world.

Several rare or unique meteorites have been recovered. H.Y. McSween and A.M. Reid (University of Cape Town) described the first observation in a meteorite of a contact between two primary, igneous lithologies, which probably formed in a single magma chamber. From the other side of Antarctica came a 189 g meteorite intermediate in composition between diogenites and eucrites (H. Takeda and H. Mori, Tokyo). Finally McKinley and colleagues (University of New Mexico) described a 'unique' unequilibrated, L3, chondrite from Allan Hills. The stone is unusual in that it contains both magnetite-graphite and silicates in the matrix, and so is intermediate between 'normal' unequilibrated ordinary chondrites and a recently discovered graphite-magnetite rich variety[8]. □

1. Alaerts *et al. Geochim. cosmochim. Acta* **44**, 189 (1980).
2. Eberhardt *et al. Astrophys. J.* **234**, L169 (1979).
3. Jessberger & Dominik *Nature* **277**, 554 (1979).
4. Wood, J.A. in *Asteroids* (ed. Gehrels) 849 (University of Arizona Press, 1979).
5. Hutchison *et al. Nature* **287**, 787 (1980).
6. Willis & Goldstein *Nature* **293**, 126 (1981).
7. Olsen *Nature* **281**, 516 (1981).
8. Rubin *et al. Nature* **291**, 544 (1981).

99 years ago

The *Japan Gazette* of August 21 contains a long and curious description of a bear festival among the Ainos. The writer, Dr. B. Scheube, is, we believe, the only European who has ever been actually present at this ceremony, the descriptions of it given by Miss Bird and other writers being derived from hearsay. The festival is now rarely held, and there is small reason to regret this, as it has degenerated to a brutal orgy. It commences with drink, every change in ceremony begins and concludes with drink, until finally every one in the village is intoxicated, while their hands, faces, and clothes are smeared with the gore of the sacrifice. Dr. Scheube says: "I had much difficulty in keeping off the drunken crowd that wanted me to partake of the blood and liver (the latter is eaten raw); and I can say that though hardened in these things by the practice of my profession, the sight of these drunken people with their bodies smeared over with blood filled me with a loathing that made me feel glad that the day and the feast were coming to an end together". Dances, many of them of an obscene nature, also form part of the ceremony.

Mr. Stanley has published separately a full report of the address he recently gave in Paris. From this we glean one interesting item of exploration. After he had launched his steamer on the upper waters of the Congo, above the cataracts, he proceeded up the river and entered the Kwango, the great southern tributary. One hundred miles from its mouth he came to where two large streams united to form the main river; a greyish-white stream from south by east, the other, of an inky colour, from east by south. Ascending the latter, much less rapid than the former, Mr. Stanley came, after steaming another 120 miles, to a large lake, into which the river widened. On circumnavigating it, he found it about seventy miles in length, and with a breadth varying from six to thirty-eight miles. The natives he found very wild, and naturally astonished at the puffing monster. A splendid country the shore seemed to be — dense, impenetrable — lofty forests, alternating with undulating grass lands. Mr. Stanley was altogether three years away from Vivi, and doubtless he has collected much information in the country around the Congo.

From *Nature* 27, 19 & 21, November 2, 1882.

0028-0836/81/450016-01$01.00