

Freeport for physicists broods about imminent change

Trieste

Is there life after Salam? That is the centrepiece of curiosity at the International Centre for Theoretical Physics here now that it seems certain that Professor Abdus Salam, the founder of the centre and its director since doors first opened in 1964, will next week be nominated as director-general of UNESCO by the government of Italy.

The objective of the centre since its foundation, with funds provided by the International Atomic Energy Agency (IAEA), has been to provide a means by which scientists from developing countries could acquire skills in a field which, however esoteric, has the merit of being portable. Over more than two decades, the still-growing centre, on a promontory with a glorious view towards Venice over the Adriatic, has become known not merely as the Pakistani physicist's creation but as his place. Even when (as last week) he is not here (but in South America), his presence is palpable.

Salam's least predictable achievement is his political popularity in Trieste, once one of Europe's busiest ports which has become an economically depressed city, losing 5,000 young people every year, since the Second World War. Part of the explanation is that Salam's centre has become a model for the attempts by the government of Italy to turn Trieste into a science centre. Italy's first graduate school (known as the International School for Advanced Study) sits alongside the centre. There are substantial centres for economics and geophysics (mostly seismology) already in being. Half of UNIDO's newly created centre for biotechnology will be here (the other half is destined for New Delhi), while it was announced on Monday this week that Trieste has been chosen as the site for Italy's 1.5 GeV synchrotron radiation source.

The funds (roughly \$100 million) for this venture have now been committed by the government. The next year will be spent on a feasibility study, whereafter construction will begin early in 1988. The case for the new synchrotron source, widely supported by the Italian rests on the demands for access to the European synchrotron source at Grenoble.

Whatever the economic motives for these developments, the townspeople believe much of the credit is due to Salam's readiness to make common cause with the city's social and economic problems. One quotes with admiration the once-again prime minister, Sgr Giulio Andreotti, as saying "when somebody from Trieste asks me for something, I say no, but when Salam asks for \$1 million, I

cannot refuse".

Over the years, the government has grown to be the largest single supporter of the centre, now supplying more than 80 per cent of the annual budget of more than \$10 million. The other substantial contributors are IAEA (31 million) and UNESCO (\$400,000 a year so far). There



Professor Abdus Salam — set for UNESCO?

are also small contributions from UNDP and from the government of Britain and the United States (\$10,000 and \$20,000 respectively), the last intended as compensation for the withdrawal of the two governments from UNESCO.

The generosity of the Italian government towards Salam's centre is one of the grounds for the belief that, after Salam, there will be an Italian director. But, others argue, if Salam is snatched away to head UNESCO, he will surely be able to sustain his expressed view that the centre must be run by a physicist of distinction from a developing country. Italian physicists also say that the centre is so different from any other in Italy that only Salam's view could prevail.

The distinctiveness of the centre is beyond dispute. Last year, there were more than 3,000 visitors, most of them theoretical physicists from developing countries, but the remaining people recruited for short spells to run courses or research workshops. The residential full-time staff is a mere handful, but continuity is provided by a group of consultants from nearby institutions, predominantly the theoretical physics department of the University of Trieste (which is housed at the centre). At any time, there may also be between 20 and 30 postdoctoral fellows working at the institute, some of whom will have brought their own funds.

The other main thread of continuity is provided by the group of some 350 associate members of the centre, all of them physicists from developing countries who are elected for periods of six years at a time, and who have a standing invitation to return every other year (on a small

stipend provided by the centre) for periods of between two and four months.

Those concerned speak enthusiastically of this nearly permanent relationship with the centre. Luis Masperi from the Balseiro Institute of the University of Cuyo in Southern Argentina says that almost all the members of the faculty of what is claimed to be the most distinguished institute of its kind in Latin America have been associates of the centre at Trieste. Julian Chela-Flores from the Simon Bolivar University at Caracas, Venezuela, says that the International Institute of Advanced Studies founded there is trying to take a leaf out of Salam's book by providing such a service for the nations of the Caribbean.

One of the most telling arguments in favour of the associateship scheme is that of F. Ardalan, an Iranian visitor to Trieste, who says that in the present political climate, it is virtually impossible for academics from his country (Syria and Libya are in the same case) to go abroad because of visa troubles. Administrators at the centre say that only their good relations with the government of Italy have allowed Trieste to become a kind of freeport for theoretical physicists.

The real bread and butter of Salam's place is, however, the string of courses and workshops which fill the year, and which now cover a much broader scope than the diet of theoretical high-energy physics with which the centre began. Condensed matter physics, astrophysics and an applied physics programme (covering subjects such as management and microprocessors) have been added over the years, not to mention mathematics. One Bangladeshi physicist turned economist said last week that his initial opposition to the inclusion of such an esoteric subject to the centre's field of interest had been dissipated by the success of the programme.

The flies in this Adriatic ointment are few and far between, but they exist. There are some who would like to add further ingredients to the programme — a somewhat tortuous process requiring the approval of the scientific advisory board. The administrative problems of mating the bureaucratic procedures of IAEA with those of the Italian government are more mundane, but more immediate. Who, for example, repairs the building (owned by the University of Trieste as stakeholder for the government)?

Salam has a reputation at the centre for being able to make all these problems go away. The most common worry is that even if he were no further away than Paris, at UNESCO headquarters, the magic would not work. His devotees fall into two groups — those who would like to see him get the UNESCO job and those with a sneaking hope that he is beaten by one of the other candidates. **John Maddox**