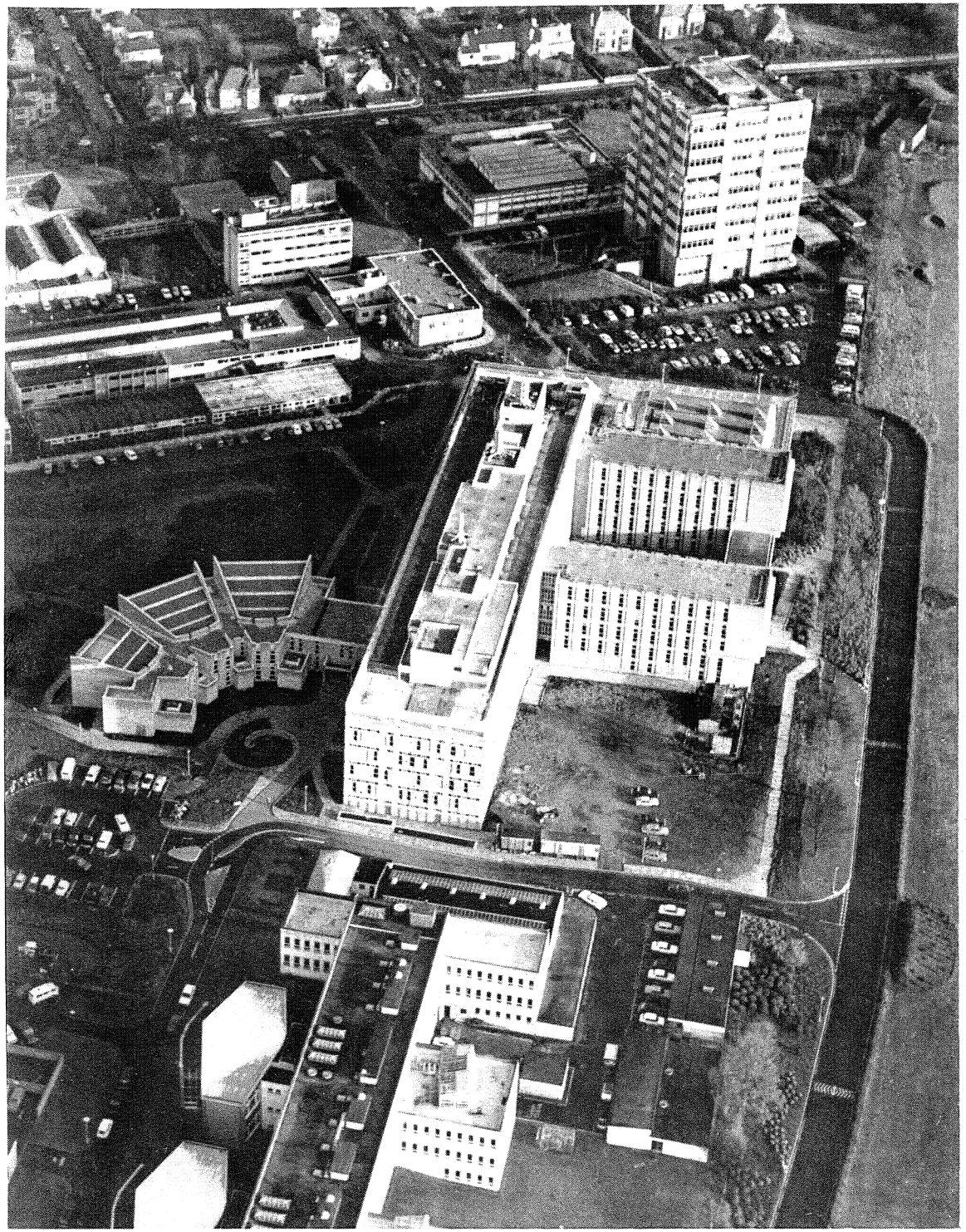
COFFEE ROOM



University of Edinburgh

The James Clerk Maxwell Building

THE JAMES CLERK MAXWELL BUILDING

User Departments

The Departments of Computer Science, Geophysics, Mathematics, Meteorology, Physics, Statistics, including an Agricultural Research Council Unit, and the Edinburgh Regional Computing Centre are now housed in the James Clerk Maxwell Building. These departments are responsible for teaching about 900 equivalent full-time undergraduate students and about 100 postgraduates, and the number of staff including academic, research, technical, secretarial, library and ERCC is approximately 375. First year undergraduates comprising about 400 equivalent full-time students are taught in the Appleton Tower, but the staff involved are based in this Building.

Planning and Occupation

Planning started in 1963 when a Project Sub-Committee, under the chairmanship of Professor Norman Feather, FRS, was set up by the University Court to prepare information and advise the Major Buildings Committee on re-housing the Physics and Mathematical Departments which had developed over the centuries in converted accommodation in the centre of the city, mainly in old properties, some dating from the 18th Century, which included an old infirmary, a mission hall, several private houses, a rifle range, a garage and the original Surgeons Hall. The concept of a combined building was strongly supported to promote academic exchange in these subjects and also to provide a suitable environment in which the emerging science associated with computers could develop. The site proposed for the building was the High School Yards and the proposed cost was £1.5 million.

Following a feasibility study the Committee reported that both the money and the site proposed were inadequate and alternatives in the vicinity of George Square and at the King's Buildings were suggested. There was very strong advocacy for a central site but the Development Committee preferred the King's Buildings on the grounds that a suitable site was immediately available there which would unify the Science Faculty, even although this would perpetuate the geographical separation of science from the other Faculties in the University.

The estimates of possible expansion on which to prepare a brief were confirmed by the University in response to the Robbins Report and a building of about 300m^2 at an estimated cost of £3 million was envisaged. This was reduced in subsequent negotiation with the UGC but even so the size required a phased construction on an indefinite programme, due to the difficulty of forecasting budget limits at the outset.

The preparation of a brief in liaison with the Design Team was carried out by a Steering Committee, appointed by the Project Sub-Committee, consisting of representatives of the academic departments, the Buildings Officer's department, the various University service departments, Architects and Consultants. There were many problems arising from a continuously changing brief required to meet the academic changes which emerged during the planning and building stages, and also from the sophisticated technical services required by the computer installations and the diverse nature of the work being carried out in the experimental science departments.

During the planning stage of the first phase the Flowers Committee Report assigned a Regional Computing Centre to Edinburgh and accommodation for this was hastily incorporated in the scheme. The two-storey building at the eastern end, designated phase IA, was started on site in August 1966 and occupied in September 1968. The creation of a Department of Computer Science required further re-planning of the original first phase and Phase IB, comprising one third of the spine block, one block of retiring rooms and the completion of the two storey erection, was started in July 1968 and occupied in March 1971 by the Departments of Computer Science, Physics and the Applied Mathematics section of the Mathematics Department. This was in part a decanting process as the final location for part of Physics and Mathematics was planned for the next phase.

Phase IIA, consisting of the remainder of the spine block, a second block of retiring rooms and the lecture theatre block was started in 1971 and occupied in July/August, 1976, when the Departments of Mathematics, Meteorology, Geophysics and Statistics transferred from various locations in the centre and Physics was redeployed within the Building.

There was a final phase in the original scheme for which finance has not been allocated. Phase IIB was planned as a third block of offices and a link block on the southern perimeter. While the teaching accommodation could provide for a significant increase in student numbers, if this were accompanied by a proportional increase in staff, the third block would be required to achieve the balance of types of accommodation indicated by UGC norms. The office type accommodation in the Building is at present fully utilised for its designated purpose.

It is of interest to note that of the seven departments now occupying the Building, the ERCC, Computer Science, Statistics and Geophysics have been created since it was originally conceived in 1963.

The transfer of several large departments from the Centre to the King's Buildings site did create problems in the established undergraduate teaching programme, since many curricula involve subjects taught by other Faculties in the Centre and some significant changes were required in the timetable to accommodate these. The revised form of this has been in operation during the current session and seems to be working satisfactorily.

It was also decided to amalgamate the various departmental libraries and transfer relevant material from the George Square Library to the James Clerk Maxwell Library. This required a very great effort of reorganisation by the library staff but again the transfer was accomplished successfully with relatively little disruption of normal library facilities.

A particularly difficult situation arose at the furnishing stage of the final phase, due to the erosion of the value of the furniture grant allocated several years earlier. It was not possible to provide for this phase on the same scale as the earlier phases. However an excellent spirit of co-operation had evolved in the Steering Committee which resolved the problem by a re-distribution of available furniture, enabling the whole building to be furnished on a reduced scale but in an equitable way with only a modest supplementation of finance.

The choice of name for the building was apt. The very distinguished 19th Century Scot, James Clerk Maxwell, was a physicist and mathematician whose work greatly influenced the scientific phenomena on which modern society is based. A brief biographical note is appended.

Building Organisation

The harmonisation of the interests which prevailed in the planning and occupation stages can resolve the problems which will inevitably arise between the user departments who had previously operated autonomously in their own buildings. To this end a Users' Committee was set up by Faculty on the completion of Phase IB to co-ordinate those aspects of a Departmental Head's responsibilities which relate to the environment in which a department works and to formulate a code of user behaviour acceptable to all departments.

It was inherent in the planning of the Building that, where possible, facilities would be shared. This applies to teaching accommodation, where appropriate, and to other communal areas. Various services such as computing, library, audio visual aids, reprographics, workshops, stores and certain technician services are organised on a Building basis. Particular attention has been given to matters of safety and emergency procedures appropriate to this Building have been

established. An emergency team of technicians has been trained to deal with incidents which arise from hazards associated with work in this particular Building, as well as those common to all University buildings. Fire protection is provided by an alarm system directly connected to the Fire Station with automatic sensors in particularly vulnerable areas.

The organisation of shared facilities is supervised by sub-committees on Safety, Accommodation, Library, Maintenance and Technical Services, General Services, Finance and Staff, which report to the Users' Committee.

An Administrative Secretary has been appointed to provide a focal point for all users. Her duties include servicing committees, liaison with conference organisers, supervising the operation of timetables, allocating classrooms and associated services, organising notice boards, recording and initiating action on faults in services and deficiences in fabric, and maintaining a liaison with cleaning and custodial staff. Overall supervision of the technical services on behalf of the Users' Committee is exercised by the Laboratory Superintendent of Physics, who has been designated Technical Director for the Building.

Although the ERCC, as a service organisation, has its own administrative staff, there is close co-operation between this and the building administration. For example a reprographics section set up by the ERCC now provides for all user departments and is extending its services to all departments on the KB site. The data preparation areas are administered by the ERCC and provide computing facilities available to all in the Science Faculty. On the other hand the servicing of lecture theatres and the provison of workshop and stores facilities are organised by the Physics Department but for the benefit of all user departments.

Building Statistics

There are four fully serviced lecture theatres, seating 200, 150, 100 and 60 respectively, each with a provision for closed circuit television link with any part of the building so that, for example, experimental work in a laboratory or video display output from a computer can be viewed live; other non-service classrooms varying in seating capacity from 150 to 10 have been provided for formal lectures, tutorial work, seminars, self study and examinations and all are programmed on a Building basis.

The teaching laboratories for the experimental sciences with associated preparation rooms are of uniform size of approximately 100m^2 with larger open plan air conditioned areas for Computer Science. Most research areas have standard laboratory services provided but some have the specialist treatment required for particular types of work.

There are 285 offices ranging in size from approximately 15 - 20m^2 with a standardised provision of furniture.

The areas associated with the various types of accommodation are summarised in (1) below, all in m^2. The costs are shown in (2).

(1) Areas

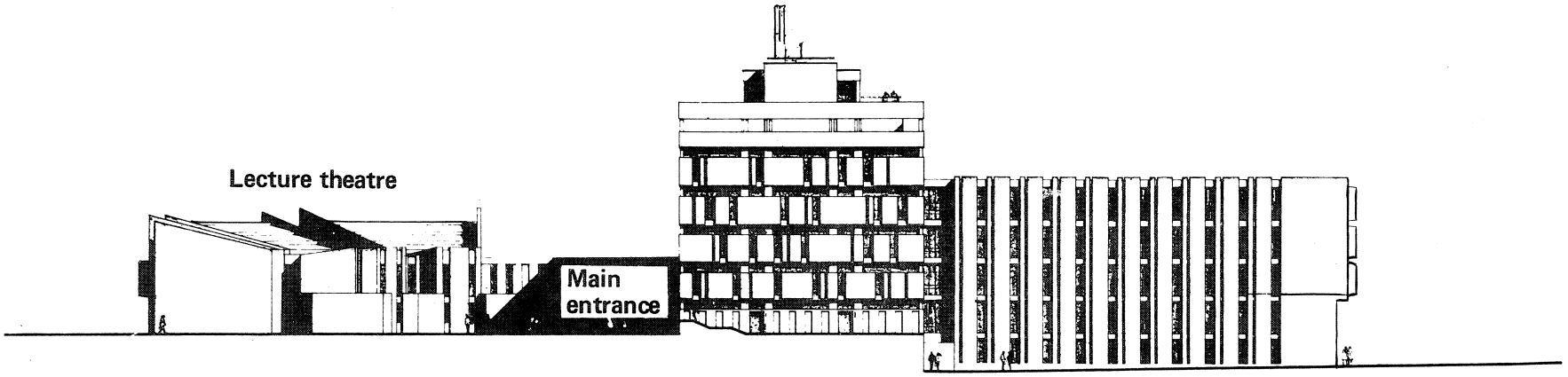
TYPES OF ACCOMMODATION	PHASE IA	PHASE IIA	TOTAL
Teaching Accommodation	102.00	2443.68	2545.68
Offices	1130.24	4189.74	5319.98
Laboratories	300.72	7052.18	7352.90
Libraries	50.16	373.00	423.16
Departmental Computing	0.00	1026.36	1026.36
ERCC Computer Rooms	257.13	0.00	257.13
Communal and Catering	16.92	629.68	646.60
Totals	1857.17	15714.64	17571.81

(2) Costs

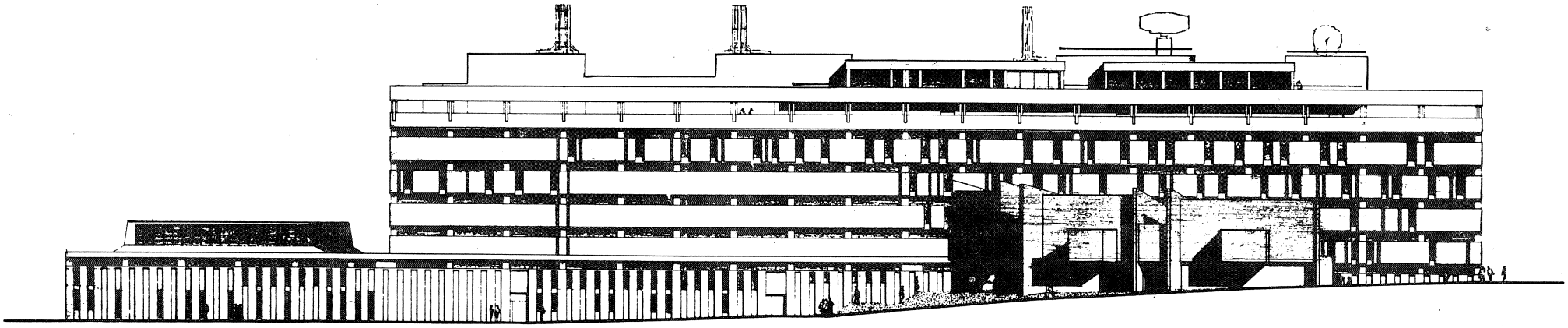
PHASE	BUILDING	FURNITURE
IA	320,000	98,000 (including computer-related furniture)
IB	1,115,000)	400,000
IIA	1,610,000)	
Totals	£3,045,000	£498,000

Design Team

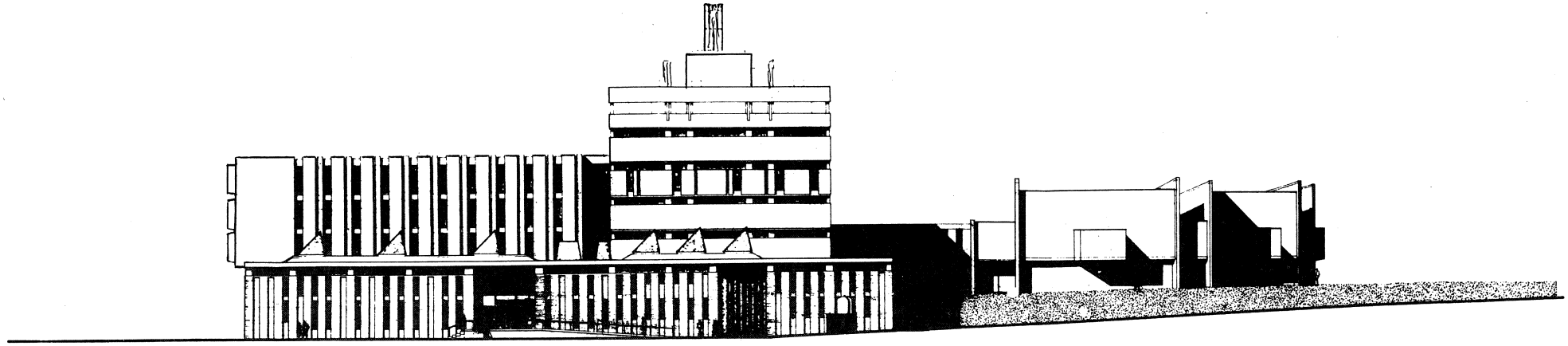
ARCHITECTS	:	J Hardy Glover Sir Basil Spence, Glover & Ferguson
QUANTITY SURVEYORS	:	J D Gibson and Simpson
STRUCTURAL CONSULTANTS	:	T Harley Haddow and Partners
SERVICES CONSULTANTS	:	Steensen, Varming, Mulcahy & Partners



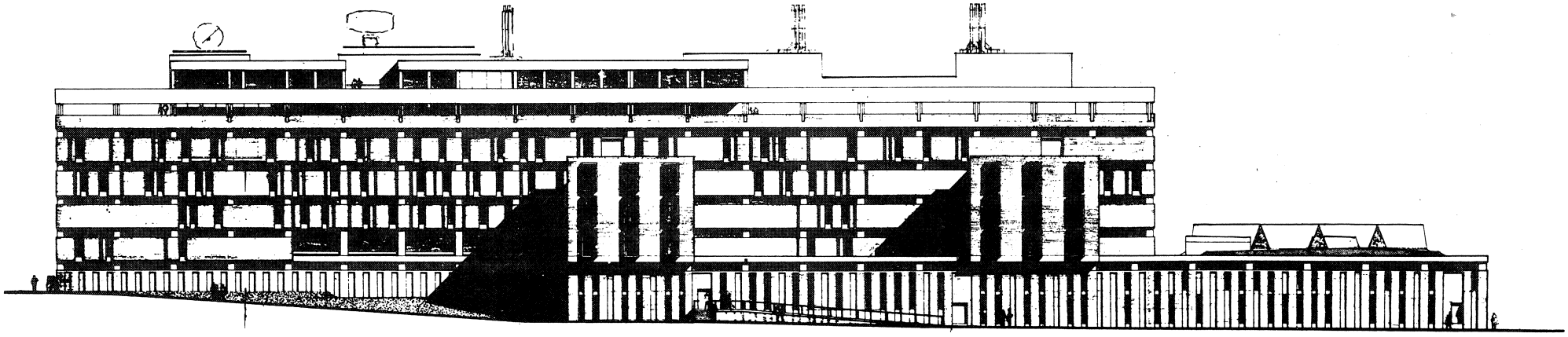
View from west



View from north



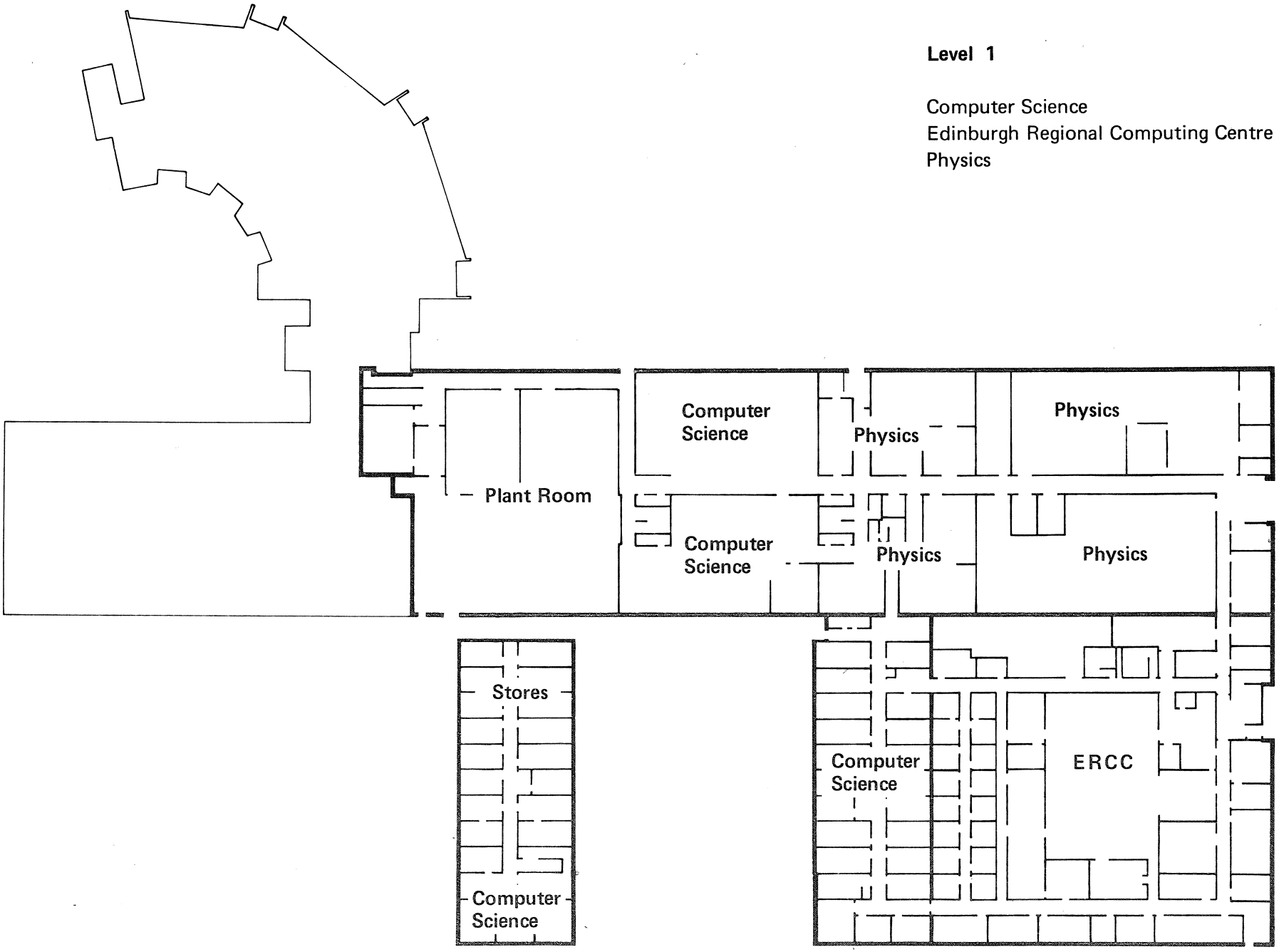
View from east



View from south

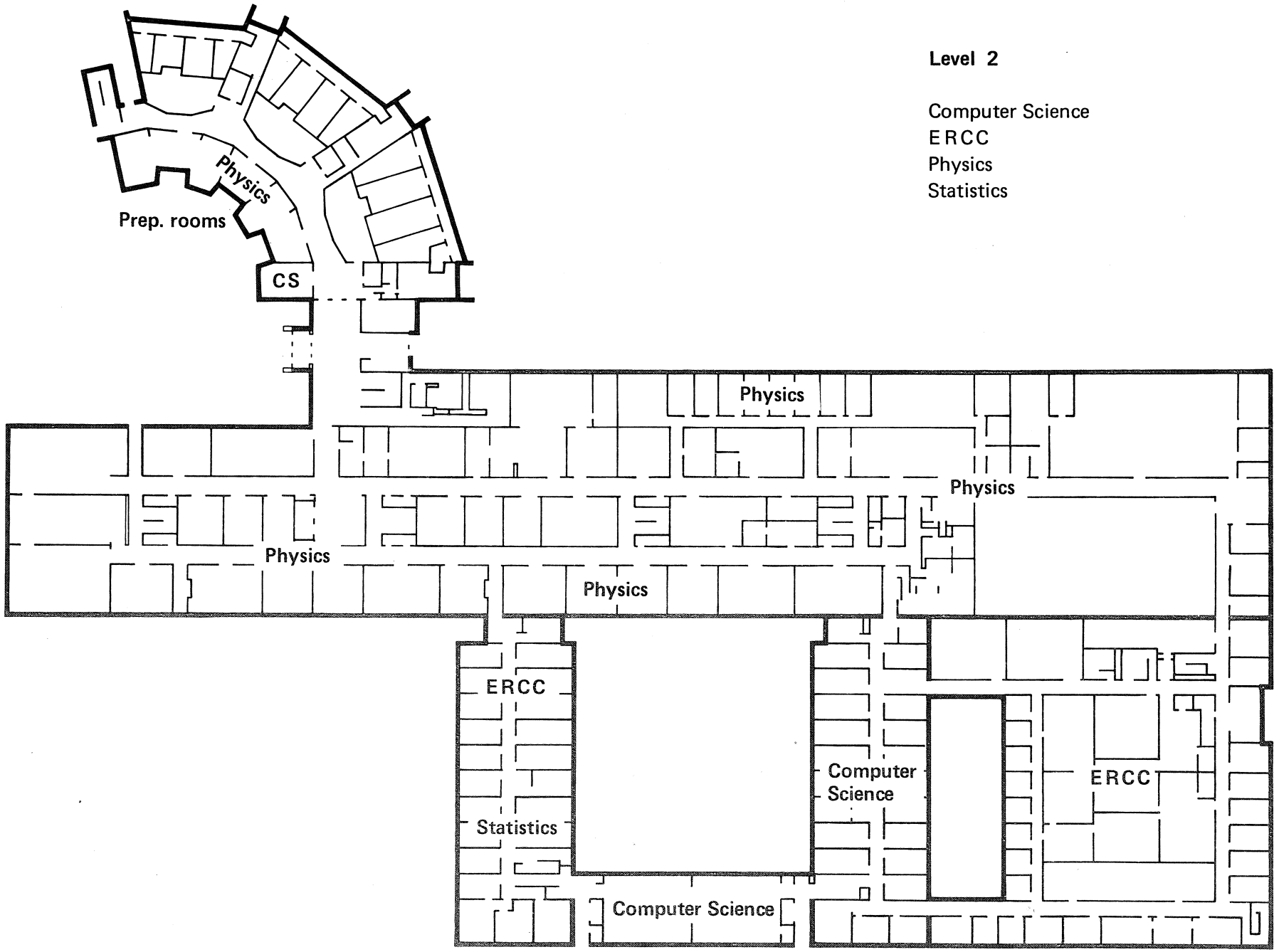
Level 1

Computer Science
Edinburgh Regional Computing Centre
Physics



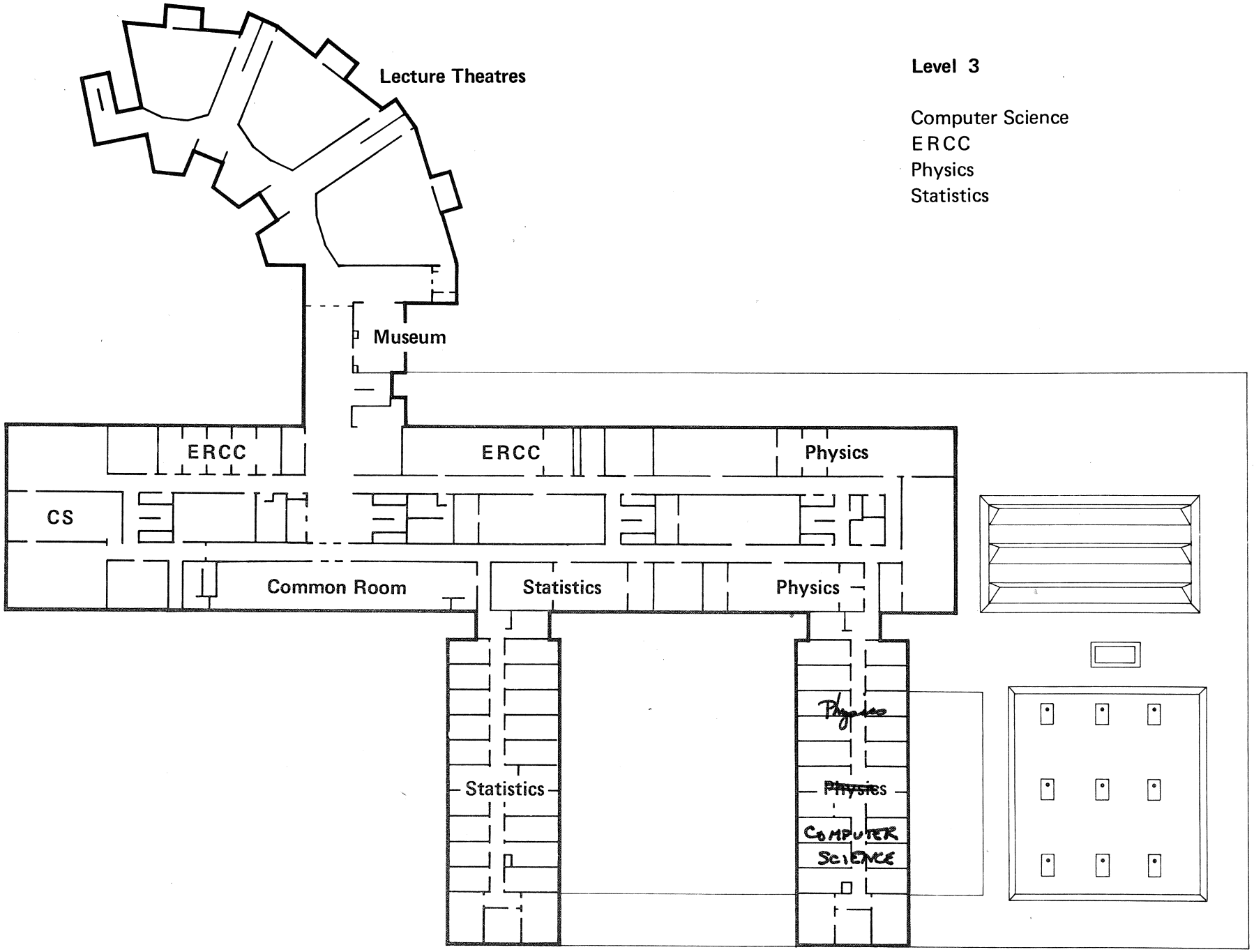
Level 2

Computer Science
ERCC
Physics
Statistics



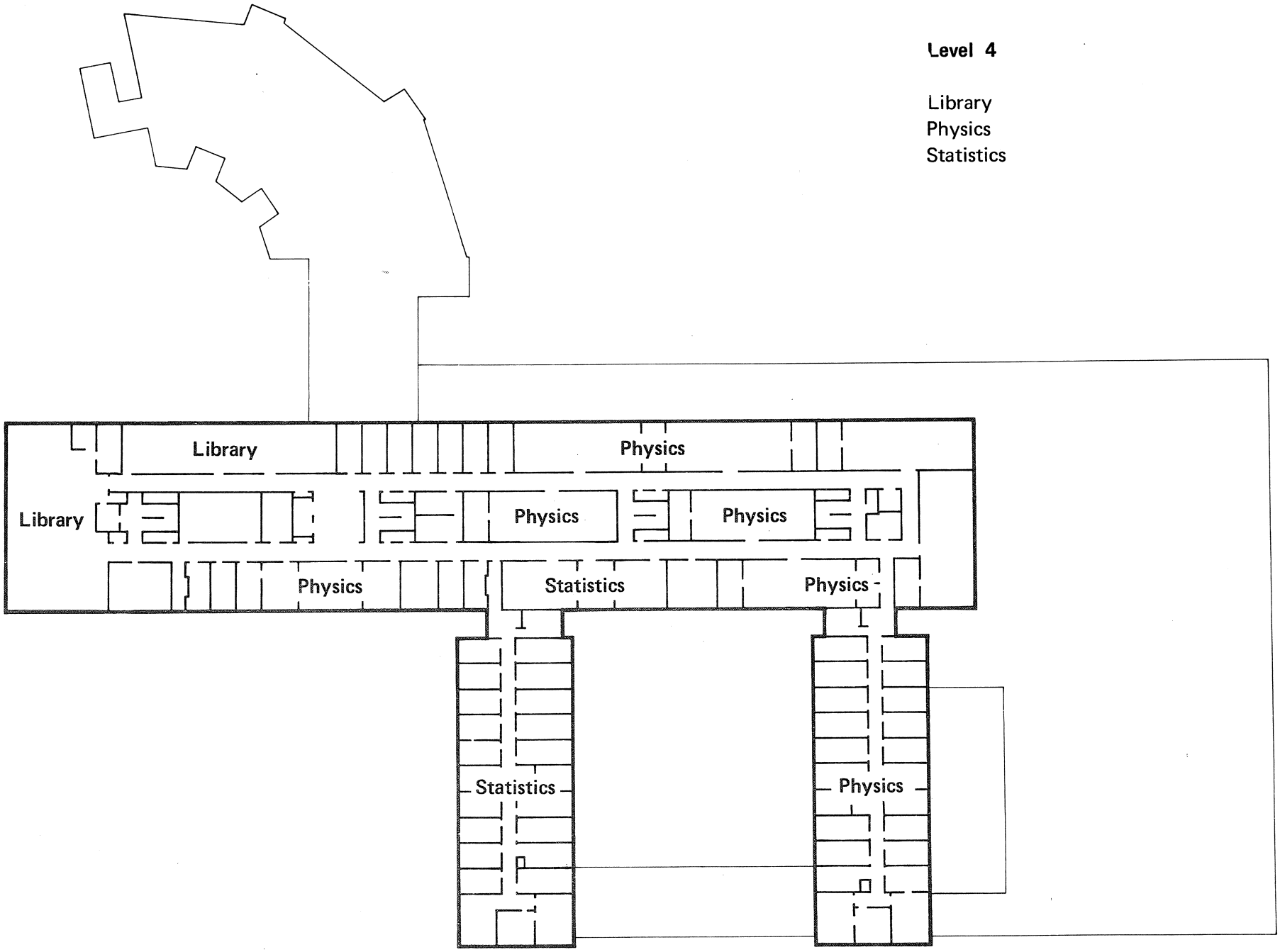
Level 3

Computer Science
ERCC
Physics
Statistics



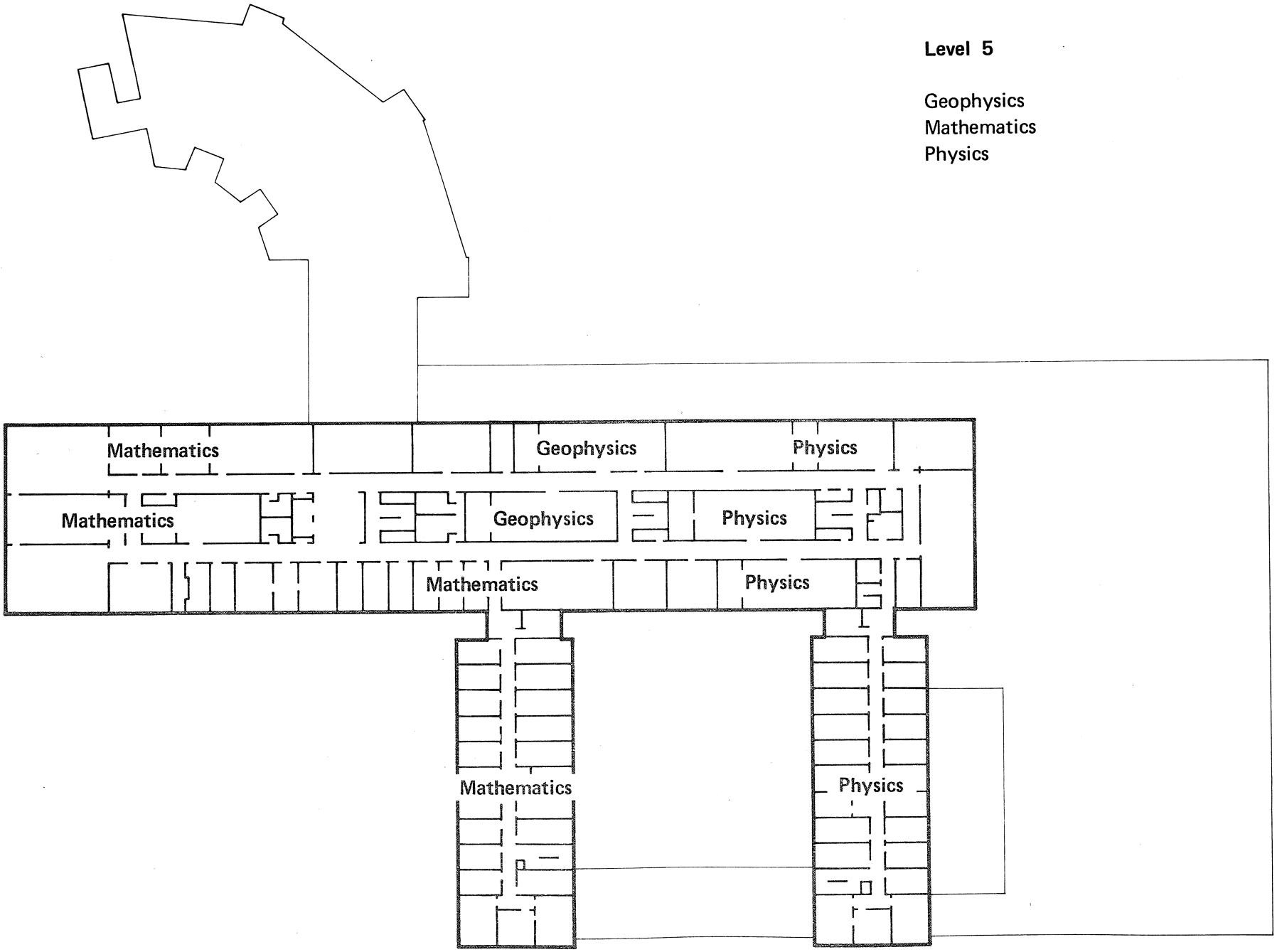
Level 4

Library
Physics
Statistics



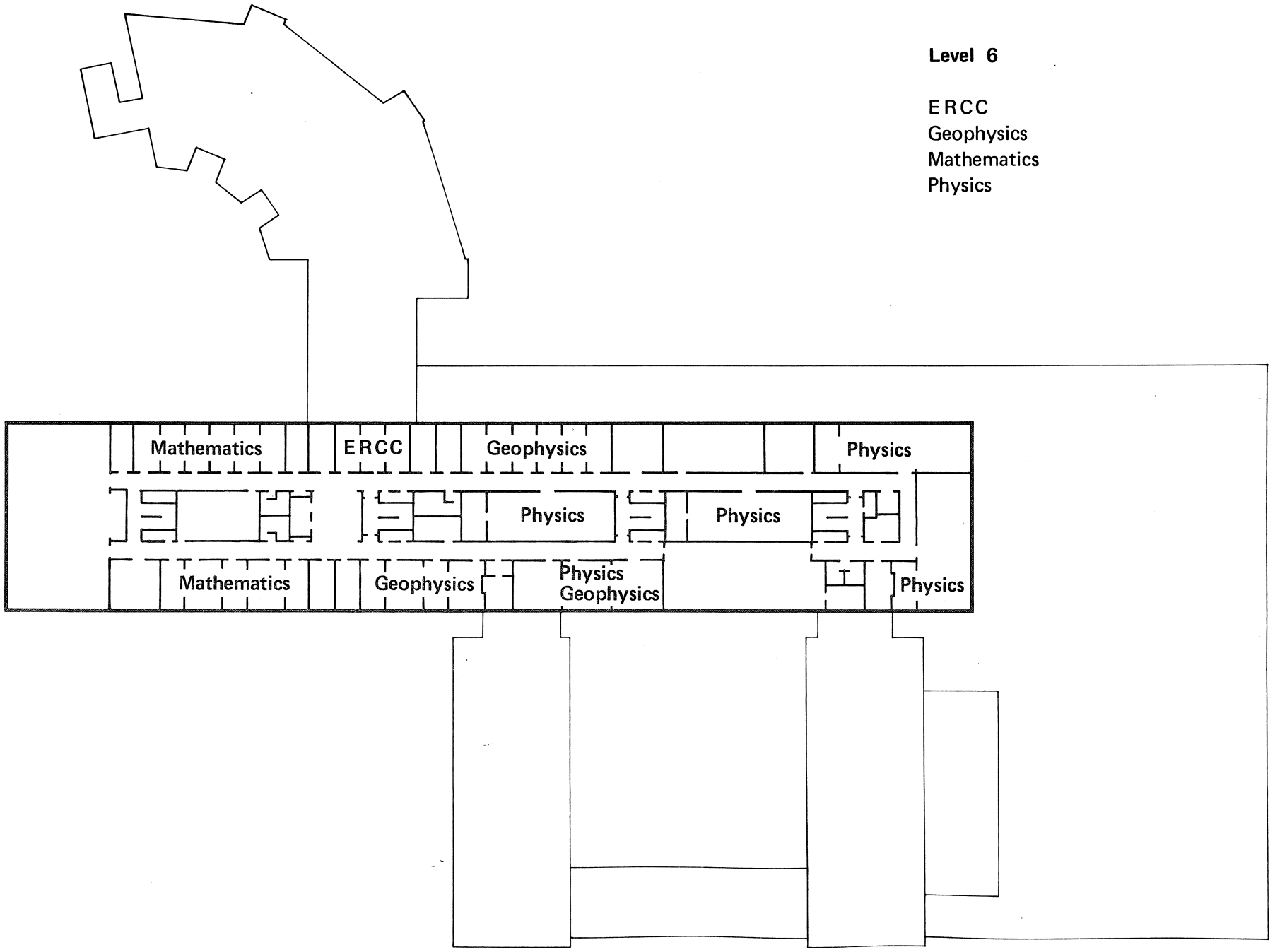
Level 5

Geophysics
Mathematics
Physics



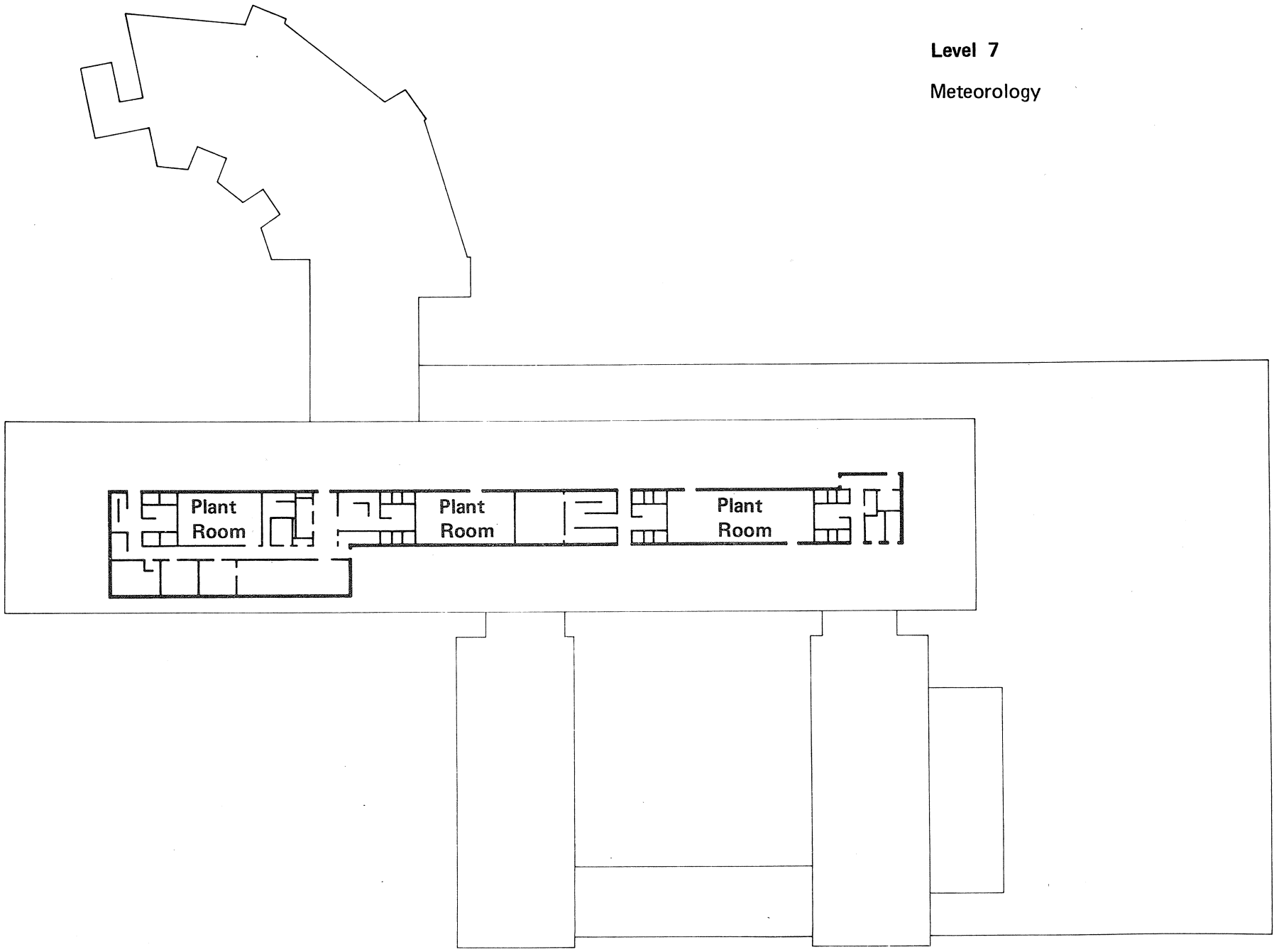
Level 6

ERCC
Geophysics
Mathematics
Physics



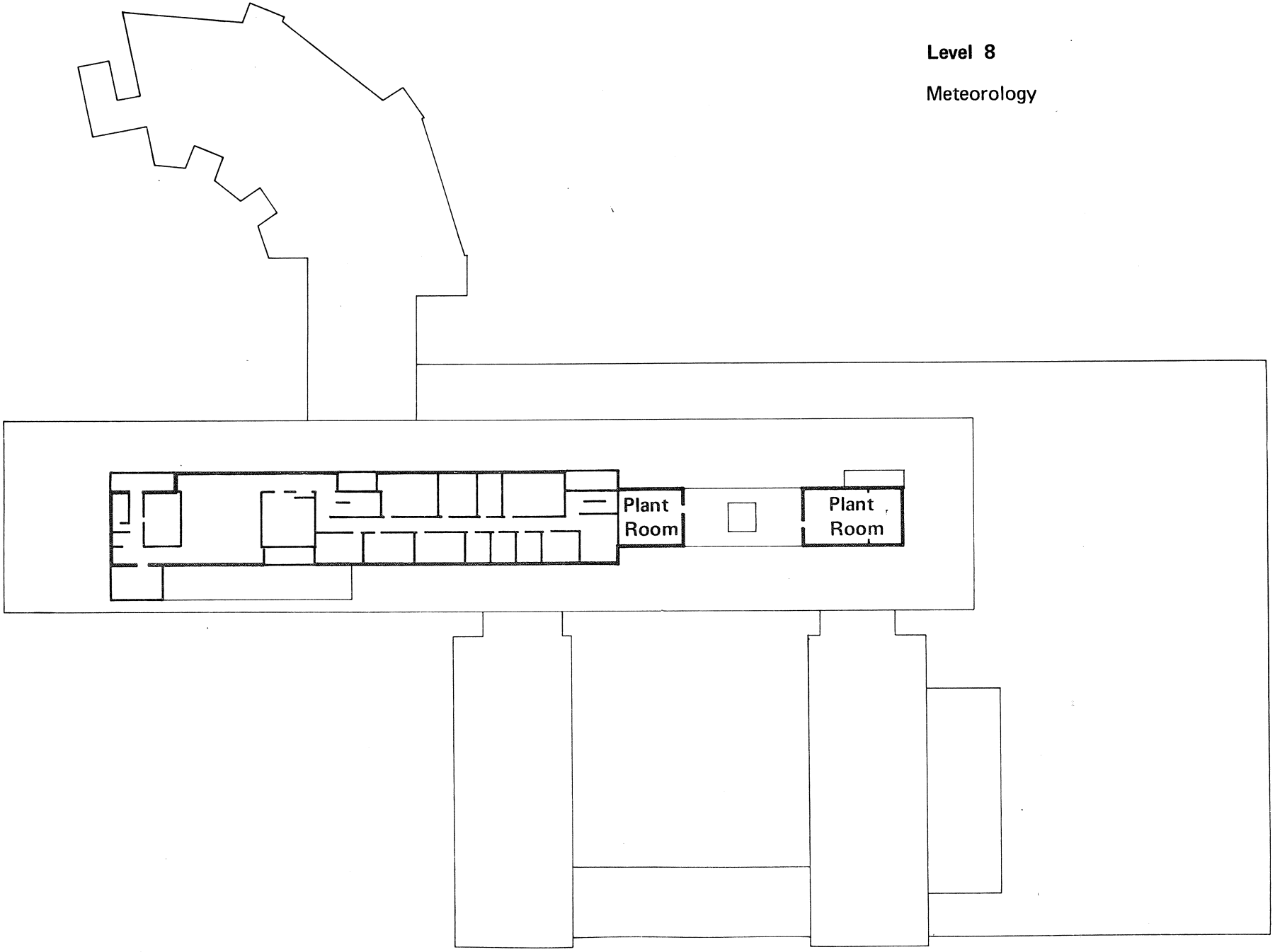
Level 7

Meteorology



Level 8

Meteorology



Level 9