

HUMANE

Heads of University Management & Administration Network in Europe

SEMINAR

Universidad de Córdoba

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“Space Management”

Summary

One of the Working Groups set up by HUMANE as part of its TNP activity set out to review the subject of space management in European Universities. This work had in turn been inspired by initial consideration of various environmental topics. Distinctions between such closely related topics risk being artificial, and the seminar was designed both to discuss the precise findings of the Working Group (as at May 2001), and to consider other linked issues which might be developed in the future.

The HUMANE Space Management Questionnaire

Christine Challis (London School of Economics) and Luciano Galan (Universidad Autonoma de Madrid)

This introductory session gave an analysis of the main results and issues raised by a survey which had been circulated to all member institutions of the network. It opened by outlining the main objectives of the group:

- (i) to provide comparative information to support members of HUMANE in the task of managing the university estate effectively as part of their role in the implementation of institutional strategy;
- (ii) advancing common interests across the higher education sector in Europe and keeping in touch with best/good practice in universities or university institutions;
- (iii) awareness of strengths and weaknesses of the estate, of use of space and the environmental impact;
- (iv) to identify European-wide space management issues in universities, to draw to the attention of governments and other authorities.

The Group had been co-ordinated by Christine Challis and Luciano Galan. Other members of the Group were: Françoise Granger (Ecole Normale Supérieure de Lyon), Anne-Grete Holmsgaard (Danmarks Tekniske Universitet), Gaetano Serafino (Università degli Studi di Firenze) and two colleagues with professional responsibilities in the field: Chris Kudlicki (Head of Estates at LSE) and Betty de Keizer (Universiteit van Amsterdam). This composition gave a broad range of national experience and specialist involvement

The Group had circulated a comprehensive questionnaire to members of the HUMANE network to gather information on how space is managed in the different universities or university institutions; to establish whether the estate strategy is an integral part of the university's academic and development; to identify trends, gaps in knowledge about the estate, best practice, extent of benchmarking, and innovative approaches to space and environmental management.

Fifty-two (52) responses had been received from universities or university institutions in over 15 countries. The statistical analysis of replies which was presented to the seminar was based on 50 replies as two had not arrived in time to be included.

The questionnaire had provided a great deal of material, and a large amount of statistical data which had needed careful analysis. In fact, the practical comment – even at an anecdotal level – had often turned out to be more important or significant than the strictly statistical analysis. It had also become apparent that some concepts meant different things in different languages and cultures, and this had led to some disparities in initial answers. Words like “ownership”, “budget”, or “waste” could mean different things. Even the idea of a strategic plan could range from a formal document to a set of aspirations.

A full copy of the questionnaire and of the major findings will be part of the report submitted to the Commission following the third year of the HUMANE Thematic Network activity. In the interim, the main points to emerge from the survey could be summarised as follows.

Size

- Two thirds of institutions responding had an annual income of less than 200 million euros, with 37% at less than 100 m euros. Responses were thus from smaller, rather than larger institutions.
- On average, institutions had 16,668 full-time students (73% of total), 2,613 part-time (11%), 1915 distance learning (8%) and another 1,874 (also 8%) registered but not attending.
- The median figure for student numbers was 12,375 – that is, half of institutions were above this figure, and half below. Of those with fewer than the median, two thirds had fewer than 36 separate buildings, while one third had more than 36. In the larger institutions the proportions were reversed.
- Average staff figures were 1,129 full-time equivalent academic staff and 1,146 non-teaching or research staff. One of the strongest correlations in the whole survey was that there is one member of staff (all categories) for every seven students. The median figure for staff was 2,000.

Planning

- The great majority of institutions had a strategic plan, although 14% did not.
- Of all institutions, 74% had an estates strategy – and more usually it was the smaller ones.
- Only 24% of respondents had a strategic environmental plan – and the relatively high percentage of those with commercial partnerships suggested that private enterprise might be a motivator here.
- Only a third of institutions participate in benchmarking exercises.

Estate

- More than half of all institutions have three or more locations/campuses.

- About half of all buildings had been built in the last 30 years, with a major concentration built between 1970 and 1990. However, the fact that 12% of buildings dated from before 1900 showed that there should be a special interest here.
- On average well over 60% of gross internal area was devoted to academic purposes, while 5% was given over to office use for central administration.
- Space requirements are expanding for most institutions, and stable or declining for only 21%. Space requirements for those with 3 or more locations are expanding faster than for those with only one or two locations.
- The introduction of IT has required re-organisation of space and services, at some considerable cost. The biggest changes envisaged in future in this area concern the building of new pc rooms and the provision of open access to such rooms. Better space management is seen as the key, rather than increasing network capacity.
- The two most frequent methods of space intensification were sharing of facilities between departments and increasing the length of the teaching day. Desk sharing and remote working were at the bottom of the list.

General discussion of these and related issues led to various observations on the comparability of terms or contexts throughout Europe. For example, ownership of buildings was something which varied with national systems. In Germany, universities did not own their own buildings - therefore, if German universities were prominent in the survey the average figure would be distorted. Meanwhile, since the questionnaire had asked whether universities owned all their buildings, there was a risk that a negative answer might cover various situations and percentages. These and other comments were noted for future reference. In general terms, the participants were impressed by the sorts of figures which were given, and saw them as a very useful means of placing their own institutions in context.

Changing environments for learning: integrating the physical and virtual estate

Andrew Harrison (Director of Research & Methods, DEGW Architects and Consultants, UK)

Andrew Harrison set his presentation in the context of globalisation and new mobile communications technologies which called for new models of workplace and property management. He illustrated ways in which new types of businesses are emerging and traditional organisations are completely re-inventing themselves. Work is no longer “nine to five”. We live in a “24/7” performance culture. Global organisations are always open for business. Access to information, speed and flexibility

become key success criteria. There is increased outsourcing of non-critical activities and organisations are re-defining their core assets.

In the last decade there had been a resultant shift from thinking of real estate as a necessary overhead to seeing it as a key tool in the re-design of the business process, and now as something that can constrain the organisation's choices and threaten its very survival. Andrew's argument was that the core assets of many organisations now are intangible: their *customer base*, their *knowledge base* and the power of their *brand*.

Similarly, the role of the workplace in many organisations is being fundamentally re-thought. Opportunities for sharing space, for incorporating working from home and other locations, and the use of information technology to allow the creation of virtual workplaces will all significantly affect the amount, location and type of space occupied by organisations.

The question for participants was: Is a similar radical re-think of the use of space in higher education also occurring? Recent analysis of space utilisation in British HEIs has repeatedly found low levels of utilisation of teaching spaces. Typical utilisation figures of 20% or 30% in the mid-1990s had hardly improved since that time. It was Andrew Harrison's contention that low utilisation is a cultural issue, not an estates issue as such – as long as departments were allowed to see space as a "free good", and to maintain conservative views on timetabling, this would remain a problem. Meanwhile the utilisation of research space, departmental space and informal interaction spaces is often ignored, with (arguably) too much emphasis on teaching rooms.

The context of higher education is also changing fundamentally, with increased diversity in terms of how learning takes place and how it is supported across space and time. How is the university estate responding to these changes in teaching and learning practice? The need to integrate physical and virtual space is now crucial.

The presentation went on to discuss new paradigms for HE real estate delivery, offering case studies of innovative physical and virtual learning environments, and looking at the implications for the utilisation of real estate. A key issue will be the continuing importance of 'place' for HE institutions in the future as the *experience* of being at university provides opportunities for interaction and networking as well as for skills development. IT-based learning will be supplemented with a much richer mix of interaction spaces. The ability to re-configure space rapidly will be a major example of introducing changes in attitude about the academic workplace..

Ways of encouraging cultural change might include research partnerships with commercial organisation, which would expose academic staff to new ways of working, and also the creation of mixed user groups which might look at new ways of working before a new project is launched, thus removing the sense of threat which often accompanies new arrangements. Any new design and construction projects should include explicit programmes of change management.

In the course of discussion the analogies between academic life and commercial organisations were explored. While most participants found these useful, several members took issue with the assumptions about increased flexibility, pointing out that – especially in institutions with very old buildings – there was no scope for altering intended purpose. What use could be made of a medieval chapel when it was not being used for religious or other ceremonial occasions? Moreover, it was recognised by all, including the presenter, that place was vital in establishing the university as something with which to identify, often representing a link to tradition and history and definitely being part of a brand image.

Space Management in Germany with special reference to Baden-Württemberg

Dietmar Ertmann, Universität Karlsruhe

The seminar moved on to more detailed or particular references to individual countries. Dietmar Ertmann explained that in Germany, university policy is a matter for the *Länder* (regional States). Therefore one might have 16 different approaches on particular issues. In most of the German *Länder* the university does not own its property (with the exception of endowments). The funds for construction and maintenance are not part of the university's budget but are managed by the state property agency (Vermögens- und Hochbauamt). Construction and maintenance work is subject to intense negotiation between the university, the state property agency and the finance ministry to which that agency reports:

- For small repairs the agency will give the university a financial limit within which the university can directly mandate builders. Each individual order must not exceed 2,500 euros.
- Maintenance jobs up to 75,000 euros can be negotiated with the agency on an annual basis. For that purpose the estate agency receives a maintenance budget according to a percentage of the reconstruction value of the buildings within its district.

- Smaller construction work (up to 375,000 euros) can also be directly negotiated with the state agency on the basis of its discretionary budget.

Major construction works costing from 375,000 euros to 1.5 Million (m) euros have to be budgeted in advance by the Finance Ministry. Finally, construction work costing more than 1.5 m Euro will be co-financed by the Federation (Bund) and the Länder. Fifty per cent of the money comes from Federal funds. This means that a project has to be approved not only by the Land authorities but also by the Federation. The planning period is at least one and a half years.

Dietmar outlined the small number of exceptions to these general rules, most notably in Berlin, where since re-unification the three universities had a budget previously sufficient for only two, and where the legal provisions had been relaxed to allow universities to sell land or property in order to supplement their income.

As Dietmar explained, the general system is not exactly geared to the most economical use of space. Economies made in the use of space do not necessarily translate into savings in the university's budget, with the exception of heating and electricity charges. The conference of German university administrators had urgently asked for a new space management system in their Frankfurt declaration from September 2000. Some *Länder* (Berlin, Rhineland-Palatinate and Lower-Saxony) had already implemented various changes. Some institutions try to pave the way for a proper system of facilities management, while others try to use private sponsorship to circumvent the heavy state structures.

In Baden-Wurtemberg the State budget for building work was of the order of 300 m euros per year – around 10% of the total budget for higher education in the Land. The Land government had decided that, of this 300 m euros, 75 million would be reserved for major construction work, 125 million would be for small-scale building work, while 100 million would be set aside for maintenance. This latter sum represented about 1% of a 10 billion euro market value.

The advantages of such a scheme, with ear-marked funds, were that it guaranteed that some financial provision would be made, whereas in general, as American colleagues might say, “maintenance ain't sexy”! The budget makes sure that work is done without the risk of competition from other areas. Generally, architects and builders work well together.

The disadvantages were that universities were still dependent on another agency to agree the work, and dependent also on the political atmosphere at any given time. The ultimate decision on which work was to be done lay with the agency, and this could mean that the restoration murals might take precedence over the glass-fibre connections which a university might regard as a more central strategic aim. Universities in Baden-Wurtemberg had requested a greater element of ownership, for example in undertaking minor works at their own discretion, or arrangements for creating "matching funds". Dietmar also drew attention to the problems where SME's were exempt from penalty clauses in work done for universities. This led to inefficiencies, since in the event of any scheduling conflict builders would naturally concentrate on work which was subject to such penalty provision.

Estate Management within the University Sector in Sweden

Curt Karlsson, Linköpings Universitet, Sweden

In Sweden, a new system of estate/space management had been established in 1993. Universities have not been allowed to own and run their own buildings since 1830, and until 1993 one of the central agencies of the State, *The National Board of Building*, was responsible for the supply of buildings for universities and colleges. This agency was strictly controlled by the government. Every investment worth mentioning had to be approved by Government (and quite often by Parliament, too). The process was extremely rigid and slow and in many ways also inefficient - the needs often changed during the process, so that even brand-new buildings were a little out of date when the first tenants moved in. Besides, since the universities did not pay any rent, the buildings were effectively free of charge, with the result that the demands of space and quality became much higher than they would have been if a price mechanism had been in operation.

At the beginning of the 1990s, the Swedish Government changed from input to output control of the universities as well as of other authorities within the State sector. The process of investment in buildings described above was completely inconsistent with a system characterised by management by objectives. The National Board of Building, one of the cornerstones of the public sector in Sweden, was replaced by two State-owned companies and one small agency, the latter responsible for buildings of special cultural value, castles, diplomatic estates abroad etc. One of the two companies, *Akademiska Hus*, was set up solely to offer suitable premises for teaching and research within the university sector. All State-owned property concerning the university sector was transferred from The National Board of Building to Akademiska Hus, and formal rental agreements were established between the universities and the company.

The new company has formulated the following business concept:

“Akademiska Hus offers universities and colleges attractive and efficient study and research environments. The company is at the forefront in the development of these environments and its operational platform is long-term ownership and management.”

The owner of Akademiska Hus, the Swedish State, has formulated three goals, one concerning the demand of the rate of returns of capital invested in the company, one concerning the solidity, and one concerning the yearly dividend. Having done so, Government has left it to the universities and Akademiska Hus to decide upon investments and rental agreements. The old, extremely centralised system has been replaced by a very decentralised system. And it works very well, of course somewhat better in theory than in practice but still so well that it is very appreciated among the universities (and regarded with a slight suspicion within the Ministry of Finance as the power over the investments and some flexibility has been distributed to the universities and is no longer available within the Ministry).

An important part of the system is that Akademiska Hus has not been given any monopoly position as a supplier of premises to universities and colleges. The company has a fairly strong position with regard to the older and bigger universities, because their buildings in most cases were owned by the Swedish state and were transferred to the company when it was set up. But the buildings of some colleges were owned by private companies or city or council authorities and still are. And when a university wants a new building it is free to turn to any suitable estate company to get the best conditions. When Linköpings university opened a new campus in its twin city, Norrköping, it had established rental agreements there with Akademiska Hus and with two private companies and the city council - a perfect market situation.

As a consequence of the rental agreements, an internal rental system had also been introduced, so that academic departments have to pay for offices, laboratories and other premises on a yearly basis and teaching premises on an hourly basis. The need for premises has been considerably reduced by using these price mechanisms. But Curt Karlsson's message was that still more could be done in this area.

Space Management in Ancient Buildings

Steve Cannon, University of Aberdeen

Steve Cannon opened his presentation with a deliberately retrospective look at the development of the University and its campus. The creation of a centre for higher education in Aberdeen had been the mission of Bishop William Elphinstone. As the Bishop of Aberdeen, he recognised the need for somewhere to educate the clerics and lawyers needed in Scotland. The idea found favour with the young King James and in 1495 Bishop Elphinstone received the Papal Bull from Pope Alexander VI. It took the Bishop until 1505 to secure the funds and construct the fabric of the college itself. Much of Kings College still remains today.

The University first opened with 36 staff and students. Five hundred years later the University has in excess of 12,000 students. The University operates a modular degree structure. It offers 697 different degree programmes and 2,160 different courses. Each year there are 60,000 course enrolments and 66,167 degree assessments. Academic activity takes place on 3 campuses covering 264 hectares.

Steve Cannon pointed out that this introductory detail was necessary to understand the constraints which were imposed by physical surroundings, and to appreciate the challenges posed in operating a modern university in ancient buildings. The situation meant that the University had to reconcile a conflict between the requirement to preserve a unique physical environment whilst allowing change and development in response to needs and circumstances. After presenting a pictorial tour to illustrate the range of buildings in the University's portfolio, Steve offered three short case studies to demonstrate how 'ancient' buildings had been adapted for modern use. This involved issues of architectural heritage (and conservation areas) and the needs of legislation dealing with disability.

The session also examined the ways in which the introduction of new timetabling software had allowed the University to maximise the use of existing space.

Polish Example

The final formal session of the seminar comprised a discussion of the Jagiellonian University in Krakow, Poland. It had been planned to have a discussion of estate audit and cost benchmarking, based on a paper prepared by Dr T Skarbek (Administrative Director) and Dr W J Brzeski (Director of Asset Management), but in the event the presenters were unable to attend the meeting and the

discussion was led by Mr Chris Kudlicki, head of Estates at the London School of Economics. The full text of the planned presentation had been circulated, and amounted to some 18 pages. The main issues raised in the paper were as follows:

- The number of historic buildings
- The university's location in the city centre, but also in dispersed sites around Krakow
- Insufficient facilities
- A large space (47%) allocated to administration and other service areas (including corridors, etc)
- A lack of background information about the estate
- A claimed shortage of relevant management skills
- High maintenance costs.

It was immediately recognised in discussion that in the absence of the authors there might be some risk of misunderstanding or wrong assumptions. For example, the idea that 47% of space was devoted to administration might look like an easy target – but since this actually included corridors or “useless” space such as stairwells, the actual administrative space would be much less.

The paper noted the fact that an already difficult situation of a university adapting after many centuries of organic growth had been compounded by the current transition of Poland to Western democracy and a market-based economy. There is growing competition for students and dwindling funds. (This situation was clearly recognised by participants!). The University estimated that it could increase the number of full-time students by 50% without damaging the level of education – but it was not clear how this aim would fit with the idea that the present amount of space per student/staff member was very low at 3 m² per person. Moreover, the accommodation in the city centre was in many cases unsuitable for modern tuition or conditions, and some classes now had to be held in privately-owned buildings. A second campus had been built in the 1960s but – in common with buildings of that era all over Europe – presented problems of its own.

The University thus aimed to expand from about 80,000 m² to over 200,000 m² in the next decade. The figures given suggested that some 53% of space was devoted to teaching or research, with the remainder on administration and storage/corridors, etc. The growth would be at a “Third Campus”, where 114,000 m² of new space would be built in two phases before a further 121,000 m² brought

the total of additional space to 235,000 m². Student numbers would meantime grow from 30,000 to 50,000.

The University wished also to rationalise its current use of space, and to derive a better return on assets. There would be significant re-location of facilities. The University had engaged a team of Canadian expert advisers, whose main conclusions are given here.

- Give up the bulk of privately rented buildings in the Old Town, to save on cash flow.
- Re-development of Second Campus to provide good office and administrative use
- Rationalise use of campus buildings, in such a way as to generate income – this might involve selling buildings to turn them into hotels, or turning spare land into car parks.
- Facility management should be rationalised into one organisation.

It was recognised that a major problem had been the lack of awareness of estate asset management issues over a period of 50 years when centrally-planned State dirigisme had treated buildings as mere functional objects. Moreover, even when democracy returned following the Solidarity break-through of the 1990s there was a tendency to embrace decentralisation as the apparent answer to all problems, whereas in fact this new tendency had merely been superimposed on the existing structures, and had actually compounded the problems.

Seminar participants recognised the temptation to seek advice from a strong free-market model such as North America, but also felt that the financial and governmental constraints encountered in some shape or form throughout Western Europe would have allowed sensitive and culturally sympathetic advice from colleagues in this area. For example, the requirements of UK universities to produce precise models of running costs for various buildings might have offered good experience when the Jagellonian university admitted that it had no formal procedures for collecting the relevant data in its own survey. The survey had to some extent fallen foul of the decentralisation effect, in that different types of person were asked to do it in different areas, and there was a lack of facility managers to deal with the treatment of precise data. Other anomalies were revealed, such as the fact that payroll department was paying the wages of caretaking staff, or that in some cases central administration was paying for heating costs in departments while a Faculty might be paying for capital improvements. Definitions such as “useable area” or “total area” had also been vague, and open to various interpretations. All these factors made benchmarking all the more difficult.

Participants recognised that, *mutatis mutandis*, these anomalies would be found wherever any university undertook the first steps in an analytical process. The fact that it was now being done in Krakow was seen as an essential part of the evolution towards asset management, and the proposed definitions of different kinds of area showed considerable promise. The managers were to be congratulated not only on the initiative but also in the honesty with which they had laid out their perceived problems. This was entirely in keeping with the main philosophy of HUMANE, which was to learn from joint discussion of common problems, as opposed to imagining that any university was a model for others.

The seminar had opened with a civic reception in the gardens of the Alcazar Palace, and concluded with a guided tour of the Cathedral-Mosque, with its dizzying juxtaposition of Christian and Moslem architecture. This tour was followed by a visit to the archeological site of the Madinat-al-Zahra. Over a thousand years old, the city had been an ambitious seat of power for the Caliph of the time – and a splendid example of space management for administrative purposes! These various visits, together with a tour of a second campus, and in addition to extreme hospitality by the University in gifts and meals, led to a very full schedule.

Summary prepared by Trevor Field

This expression (as when academic colleagues refer to administrators as having a “nine-to-five job”!) refers to the traditional office culture of working from nine a.m. to five p.m.

It was interesting that one university represented at the seminar had tried to introduce new timetabling software, but had had to delay its implementation at an advanced stage of planning because the rigidity of departments over changing their traditional times of classes had brought the process to a halt.