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The OECD Programme on Educational Building (PEB)

The Programme on Educational Building (PEB) operates within the Organisation for Economic Co-operation and Development (OECD). PEB promotes the international exchange of ideas, information, research and experience in all aspects of educational building. The over-riding concerns of the programme are to ensure that the maximum educational benefit is obtained from past and future investment in educational buildings and equipment, and that the building stock is planned and managed in the most efficient way.

Eighteen OECD Member countries and nine associate members currently participate in the Programme on Educational Building. PEB's mandate from the OECD Council to advise and report on educational facilities for students of all ages runs until the end of 2001. A steering committee of representatives from each participating country establishes the annual programme of work and budget.

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OECD ACTIVITIES

SCHOOLING FOR TOMORROW –
CERI (CENTRE FOR EDUCATIONAL RESEARCH AND INNOVATION)

Learning for tomorrow

When the OECD Ministers of Education met in 1996 to set their educational agenda into the next millennium, they identified a major priority to be 'lifelong learning for all'. Far from regarding 'lifelong learning' as mainly for adults and impinging little on schooling, they emphasised that the foundations for learning laid in the early years are critical.

On-going and future PEB work should make a significant input to such reflection, and in this context CERI has launched an activity on 'Schooling for Tomorrow' in response to the Ministers' request. These different activities can be brought closer together in 1998 in a number of ways.

The CERI project

CERI has begun by asking what the main changes are in today's society and school system, and what they might imply for the future. It is analysing case studies of innovations in schooling, whether in terms of organisational change, fresh and effective forms of teaching and learning (including those which grasp the potential of technology for learning), or which have forged new links with their surrounding community and society. It is also considering schools that 'have implemented new conceptualisations of knowledge and/or espouse distinct philosophies'[1].

Special attention is being paid to initiatives that increase motivation in teachers and students, result in more effective learning, and enhance co-operation between schools and their neighbouring communities for their mutual benefit.

At an international seminar held by CERI in Hiroshima, Japan, in November 1997 experts, educators and policy-makers from 24 countries exchanged case studies. The schools presented covered many innovative aspects. One example is Harumi High

School in Japan which shares its campus with a centre for the elderly and has integrated its life with the centre. Anderson High School in the north of Scotland calls itself 'The Global Classroom', having close links with schools in Sweden, Germany, the Czech Republic, South Africa and Japan. Colegio Liceo Europeo in Madrid has done away with text-books and is probably the only school in Spain where the students keep in contact with their teachers out of school via the Internet for guidance or help with homework. A number of the schools, such as De Notenkraker ('The Nutcracker') primary school in Rotterdam, reported how they function as community centres, often staying open late into the night, at weekends and during the vacations for a wide range of cultural activities.

The conference expert papers and excerpts from the case studies presented will be published in the coming months. CERI is preparing a 'Clarifying Report' that will be discussed at its autumn Governing Board meeting this year. In the next phase of the work, CERI will develop a 'toolbox' of methodologies for developing scenarios and reflecting on what these mean for the process of change and the future. It will deepen its analysis of the nature and evaluation of innovation, and it is intended to sharpen the focus on communications technology in schools, through examining the impact of different technologies on learning and issues of quality of software and multi-media.

PEB activities in 'Schooling for Tomorrow'

What do innovations in schooling mean for educational facilities? PEB has begun to address this question and recently published two books illustrating advances in both architecture in schools and the use of educational technology. *Schools for Today and Tomorrow* (1996) describes 46 facilities in OECD Member countries, from old buildings with minor renovations, to new constructions, all models of successful design and management. *Redefining the Place to Learn* (1995) illustrates 21 educational buildings which exemplify uses of innovation in response to new teaching and learning technologies.

Successful examples of innovation in the areas of school security, school grounds, and the use of school sites for various community services have been highlighted in PEB's recent work. PEB is currently publishing the results of three conferences it has held on these topics within the past two years:

'Providing a Secure Environment for Learning'; 'Grounds for Celebration: an International Conference on the Use of School Grounds for Learning'; and 'Under One Roof', on opening school facilities to local communities for adult education and social and welfare services.

PEB is currently exploring the effects of informa-tion technology, distance learning, and other new ways of learning and teaching on libraries and resource centres in higher education; a meeting held on 9-10 March 1998 brought together professors, architects, librarians, and IT experts for this purpose. Developments in the 'ecologisation' of schools will be explored at a conference co-hosted by PEB in October 1998 in Linz, Austria.

'Schooling for Tomorrow' is an area that offers tremendous room for dialogue among architects, teachers and other school staff, and community leaders. By considering the facilities and physical resources available to teachers and students as an integral part of innovations in learning, govern-ments may invest more effectively in improving teaching in today's world, promoting lifelong learn-ing, and laying the foundations for the future of education. There is a large potential for PEB to collaborate with CERI to explore spatial issues, innovations in building planning, design and man-agement and how technology will influence and shape the education of students in the future.

Feedback

If you know of a school that has been successful in innovating, particularly combining changes in several aspects of schooling, please send details to

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e-mail: david.istance@oecd.org; or

Edwyn James:
e-mail: edwyn.james@oecd.org

You may also refer to the OECD Web site at http://appli1.oecd.org/maillist.nsf/els-ceri, or address other comments and questions to the PEB secre-tariat, fax: (331) 42 24 02 11, or to

Jill Gaston:
e-mail: jill.gaston@oecd.org.

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1. CERI/CD(97)5/REV1, OECD/Japan Seminars: Recent seminars and plans for the 1997 seminar in Hiroshima on 'Schooling for Tomorrow'.

3

NEWS

AUSTRALIA – SCHOOL GROUNDS AND RISK MANAGEMENT

This response to the article in *PEB Exchange 33* Feb. 1998 on the School Grounds conference in September 1997 is concerned with another aspect of school grounds: risk management.

In many countries school grounds are enjoying a resurgence in their creative development for use as school and community recreation space and as an important extension of the school curriculum.

More schools are recognising the need to provide attractive, yet manageable space for creative and contemplative leisure as well as active sports facilities. But a further development in the range of activities to which school grounds can be put includes the provision of areas which complement the school curriculum, especially in science, geography and environmental education.

The PEB seminar in September 1997 emphasised the benefits to the school and local community from better planning and careful development of school grounds. A further extension of the importance of school grounds is recognition of the need to manage grounds effectively so that best use is made of the assets, risks are known from the outset and positive steps are taken to ensure the grounds are both a benefit and an enjoyment, yet all foreseeable risks are managed.

In South Australia, Michael Heath and Ann Gorey have developed a risk management approach to school grounds, emphasising the need to think beyond the design and creation of attractive grounds to the areas of risk which have to be managed when creating and managing school grounds.

A comprehensive list of the range of activities and the types of things which can lead to or cause accidents has been developed, and positive suggestions made for ways in which grounds can be planned and managed better so risks are reduced but enjoyment, creativity and recreation are not curtailed.

Specific suggestions include:

- a systematic audit of school facilities and grounds to identify possible risks and to form the basis of a Risk Management Plan;

- the need for a Campus Management Plan which includes a maintenance schedule and allocates specific responsibilities to key people within the school to ensure there is adequate risk management;

- an examination of how each of these plans links to the School Development Plan which outlines the school's strategic directions and priorities for spending.

There is a National Standard for Playground Design, Safety and Maintenance and also a Risk Management Standard, available from Standards Australia (fax: 61 2 97 46 33 33, Internet: http://www.standards.com.au/).

Further information on this planned approach to Risk Management for School Grounds is available, and comments on the approach are welcome. Contact Michael Heath, fax 61 8 8269 4080 or Ann Gorey, Department for Administrative and Information Services, GPO Box 1072, Adelaide, South Australia.

Michael Heath has been trained as a Landscape Architect in the UK. Since moving to Australia he has written guidelines for the development of School Grounds, developed a systematic approach to Tree Audits and is working on a new publication 'Playgrounds: their Asset and Risk Management'.

UNITED KINGDOM –

1. OUT-OF-SCHOOL-HOURS PROJECTS

The British Government plans to spend £200 million of its National Lottery funds on education. The first education initiatives are for out-of-school-hours learning activities to be established in a quarter of

all primary schools and half of all secondary schools by 2001; out-of-school childcare; and ICT training for teachers.

Homework clubs and family learning schemes are among 50 pilot projects launched on 4th February and to be funded by the Department for Education and Employment (DfEE) with industry support. The DfEE has appointed the National Foundation for Educational Research (NFER) to monitor and evaluate these pilot projects which will run until March 1999 and will involve over 200 schools as well as libraries, universities and further education colleges.

The pilot projects will help boost pupils' motivation and enthuse them about learning, enable them to do their homework in a safe environment; build on literacy and other basic skills, often involving parents; and offer young people access to books and equipment not available at home. They should address some of the causes of disaffection and exclusion; help improve overall achievements; and be creative and fun, making learning something children enjoy. Many of the schemes will offer childcare, which will help parents to balance family and working life.

Some examples of the pilot projects:

Kent children's university

A consortium of six primary schools and the University of Greenwich will run activities for primary children on Saturday mornings. The activities will cover a wide range of subject areas. Children will have a chance to use facilities and have specialist tuition not usually available to them.

On-line after school learning community

A range of schools in Brighton and Hove, the Brighton and Hove Libraries and Museum Service and the University of Brighton will create an on-line after school learning community located in four venues. The project will provide a well-equipped environment for after school study, with access to a PC and the Internet. Two venues will have access to library resources. Opportunities to develop positive role models through mentoring will be provided.

Use of school grounds

Clipstone Brook Lower School, Bedfordshire, will landscape a designated area of their school ground to include a variety of garden areas, nature trails and wildlife habitats. Children will be provided with first-hand experience of developing and maintaining a garden classroom which will stimulate their interest in environmental issues, enhance their knowledge and understanding of the natural world, and develop their awareness of the partnership that exists between the human and the natural world.

A music activity centre

Walton Hall Special School, Staffordshire, will set up a music activity centre to offer an exciting range of musical opportunities for after school activity. Students with learning difficulties will have access to equipment and resources appropriate to their abilities.

Support in rural areas

A consortium of a secondary and 9 primary schools in Cornwall will take study support out into villages in a remote rural, sparsely populated area. It will offer a variety of activities which stimulate learning, allow and facilitate a free choice for the youngsters.

The Premier League study support centre initiative

The Premier League Study Support Centre initiative 'Playing for Success' is part of the Government's drive to expand study support and out-of-school hours' provision generally. The Centres will offer programmes focused on improved literacy, numeracy and information technology skills. The initiative will be jointly financed by the DfEE, football clubs, local education authorities and sponsors. Pupils in Newcastle, Sheffield and Leeds will be among the first in the country to benefit from the programmes and have the chance to do their homework in the study support centres at their local Premier League clubs. Over time centres are expected to be set up in all Premier League clubs. Football will be used as a catalyst for learning.

2. BUILDING FUNDS

The DfEE will receive an extra £250 million to invest in education across the UK, on top of the £1.3 billion capital funding already announced. According to *The Times*, £90 million of this extra investment are allocated to building improvements and construction: installing indoor lavatories in

600 schools, updating heating systems in 500 schools and building more primary school classrooms in order to limit the number of pupils per class to 30.

3. New Developments in School Security

Following the murder of a London headteacher in December 1995 a Working Group on School Security (WGSS) was set up by the British Government. The group's report, which was published in May 1996, included a number of recommendations. One outcome was that the Department for Education and Employment (DfEE) agreed to fund research on personal safety and violence in education. The work was commissioned by the Suzy Lamplugh Trust and undertaken by the Scarman Centre for Public Order at Leicester University. The purpose of the research was to identify:

- the number and type of incidents faced in schools;
- strategies for improving personal safety; and
- recommendations for good practice.

The basis of the research was a questionnaire sent to some 4,000 schools, of which 2,300 responded. It is clear from the findings that more can be done to make schools safer places. It is also evident that good practice already exists: nearly nine out of ten schools, for example, have undertaken a security audit. The report of these findings, 'Personal Safety and Violence in Schools', makes a number of recommendations for good practice, which encourage partnership and co-operation between schools themselves, local education authorities (LEAs), local communities and the police. Some recommendations are addressed to the Government. Action has already been taken or is in hand on a number of relevant fronts.

Training for staff

From this summer trainee teachers will have to demonstrate that they can maintain discipline and establish a safe environment in which pupils feel secure. Funding is available for training in personal safety techniques through the Grant for Education Support and Training (GEST) programme.

Physical restraint of pupils

The 1997 Education Act included a provision to clarify the powers teachers have to use reasonable force to prevent pupils, for example, from committing a crime, or hurting themselves or others. The provision had effect from April 1998. The Government will be consulting widely on this and other provisions of the Act regarding pupil discipline. New draft guidance setting out the powers that teachers have to restrain unruly pupils was published in February. Views are being sought on this guidance from a wide range of organisations. The guidance gives examples where physical intervention may be appropriate. It emphasises, however, that corporal punishment remains unlawful. It also advises that a clear policy on this subject should be established that can be understood by all staff, parents and the governing body and all incidents should be recorded.

Citizenship in the curriculum

The White Paper 'Excellence in Schools' sets out proposals for developing citizenship education in schools. These include opportunities for all young people who wish to do so to volunteer for community work and provision for education about parenthood in all secondary schools. The White Paper also seeks the views of teachers and others on how these proposals can be put into practice.

Community problems

The Crime and Disorder Bill will introduce a new duty for local authorities to take account of the effect of the crime and disorder implications of all their other policy decisions.

Dealing with troublemakers

Following an extensive consultation exercise, the DfEE and the Home Office have published guidance for schools and the police: 'School Security: Dealing with Troublemakers'. The guidance describes the powers available to the police and criminal justice for dealing with troublemakers in and around schools; explains how schools, LEAs, the police and others can work constructively in partnership with one another; and includes examples of police and LEA good practice.

Additional funding

An extra £22 million has been made available in 1997-98 for school security through the GEST programme. £20 million of this is for LEA schools. A similar amount will be available in 1998-99. The Government announced that £5.5 million would go to schools for security projects in the current year through the New Deal for Schools initiative.

Good practice

Examples of good practice were specifically requested in the consultation on the troublemakers guidance. Responses to the consultation indicate that much good practice already exists on which it should be possible to build.

A 'Directory of Local Authority Practice on School Security' was issued by the Department in May 1997. The report also makes recommendations to the media. These include a call for violence in schools to be reported in a fair and balanced way and for teachers to be portrayed in a fair light.

The above information on the United Kingdom has been taken from recent press releases from the Department for Education and Employment (DfEE), London. Copies of DfEE documents are available from DfEE Publications, PO Box 5050, Sudbury, Suffolk CO10 6ZQ.

FRANCE – A CHILD-SIZED SCHOOL

The recently proposed expansion of a school in the Saint-Exupéry area of Port Marly, France, will lead to the creation of a veritable children's village.

This school illustrates a number of PEB concerns in its current mandate – security, the overall environment and strong links to the surrounding community.

The future look of the Saint-Exupéry site

The inside of the elementary school
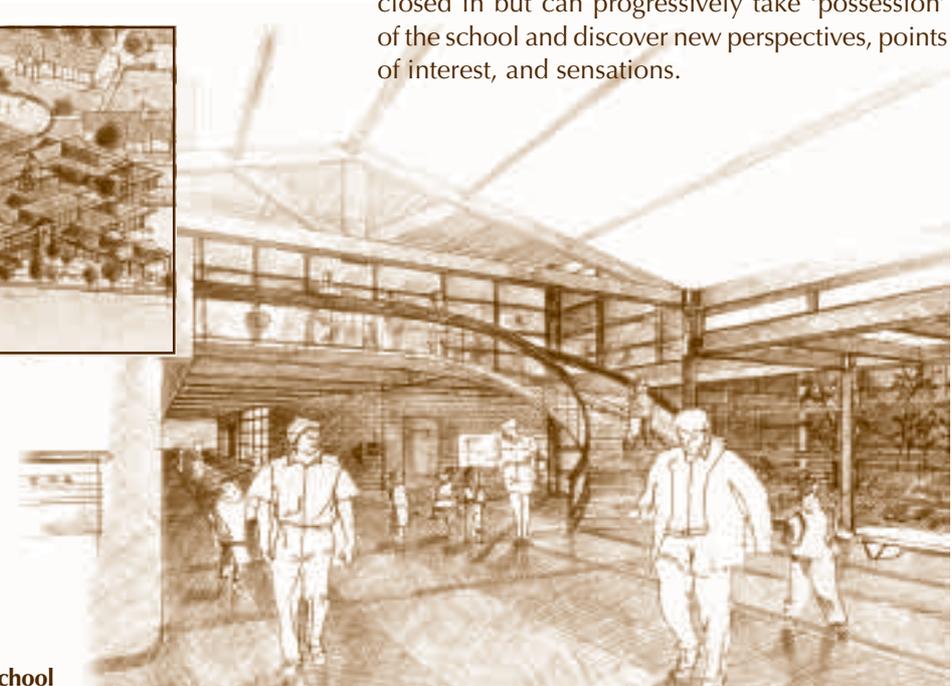
The school's architectural make-up

With its low buildings of varying sizes and its natural, quality building materials, such as wood and varnished aluminium, this educational facility is an example of simple, harmonious and balanced architecture. This effect is largely due to the combination of flat, terraced roofs and others slightly slanted with wide eaves. The choice of low buildings meets both a concern to integrate with the site and create child-sized spaces.

A protected meeting place

A pedestrian square at the southern end of the grounds will serve as the entrance for children and parents. This area, totally protected from cars, will be a buffer zone between the street and the school. It will also allow for families and teachers to meet informally; it should be a pleasant area for neighbourhood socialising.

The nursery school: a large house

Facing the entrance to the nursery school, children should have the impression of entering a large house rather than a school: it will have only one floor and a large entrance way with a raised roof to let in light. Interior patios will give natural light to hallways and other areas: children will enter a bright and cheerful place with warm colours and spaces of different sizes. Given the large horizontal spaces and high ceilings, private interior patios and openings onto the outside, children should not feel closed in but can progressively take 'possession' of the school and discover new perspectives, points of interest, and sensations.

The elementary school: a different vision

The primary school will be higher and facing it older children will see a different structure. With an additional floor the school will be adapted to the children's growth, while keeping the same principles of light, amenity and variety in spaces and volumes. The period of adaptation from nursery school to primary school will therefore be reflected in the transition from smaller-scale to larger buildings, thus contributing to the children's awakening and to an interest in the discovery of new and different materials. The choice of colours will be in harmony with this development, varying according to function.

Respect for the environment

A concern for respecting the environment is shown throughout the course of the project. Existing trees will be preserved and landscaping will complement them. There will be grassy areas, bushes will be planted along fences, and small slopes will be created.

Development and flexibility

Flexible use of space is planned, with the possibility of interchanging nursery and elementary school classes (a pivoting partition will allow a classroom to be switched from one to the other). Further expansion will be possible by adding classrooms to the first floor and by using other non-classroom spaces.

Security

Security will be ensured inside and outside the buildings, and it has been treated as a major criterion in the design of the project. There will be no sharp corners, pointed objects or protrusions in the hallways, playgrounds, or other areas reserved for physical activities; the walls will be curved and support columns round. Surveillance was taken into account in the floor design. Teachers will be able to watch the children from any point in the playgrounds and inside play areas; there are no hidden spots. Children's walkways around the grounds will be well-defined and totally protected from traffic.

For further information contact the PEB Secretariat.

This text is based on an article which appeared in the Port Marly city bulletin, Le Marlyportain, *January 1998 – N° 28. The architect for the project is Dominique Vayne.*

LIBRARIES AND RESOURCE CENTRES FOR TERTIARY EDUCATION

**PEB/IMHE EXPERT MEETING (held in Paris, 9th and 10th March 1998)**

PEB, in co-operation with the Programme on Institutional Management in Higher Education (IMHE), hosted an experts meeting to determine how existing libraries for tertiary education may be adapted and new ones conceived to meet the future needs of the students, institutions and communities concerned.

Background

Traditional universities and open and distance learning institutions are reorienting their resources and methods to create 'virtual campuses' where students can register in one institution and take courses for credit in a variety of ways, such as attending lectures (presential learning) or getting material through the Internet either in public places or at home. The new models of learning call for a new organisation of libraries, the traditional information resource.

The planning and renewal of academic libraries and the management of existing ones require a 'multi-focused lens' with an emphasis on envisioning the future. 'The knowledge society' and 'information society' – with 'knowledge workers', 'information managers' and 'knowledge navigators' – are overused phrases which nevertheless have a connection to the current and future importance of the academic library. The rapacious demand for information and the pace of change in its content and form suggest dramatic changes for what has been a 'historic' resource.

The role and activities taking place within the academic library appear to be changing. These changes are predicted to affect not only library related professions and their organisation, but also the provision and technical requirements of the physical library building. Historically libraries have been a research resource supported by a
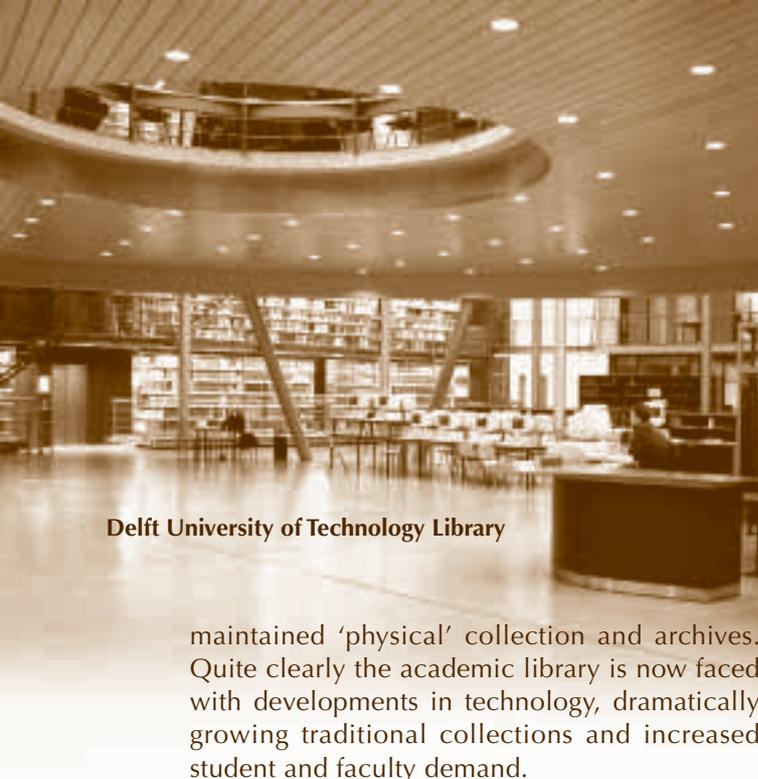
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maintained 'physical' collection and archives. Quite clearly the academic library is now faced with developments in technology, dramatically growing traditional collections and increased student and faculty demand.

Further, new and more independent 'student centred' learning methods magnify the role of the library in the tertiary education process. As a result, many universities and other tertiary institutions are rethinking the ways in which they use libraries and learning resource centres. The library profession has demonstrated leadership in embracing developments and making responding changes to adapt to new methods in electronic information storage, retrieval and processing. However, the combination of the rapid rate of change and policies with regard to copyright provides a context of uncertainty for planners and administrators.

The forces acting on library planning, design and management

The following diagram summarises the influences now impacting on contemporary libraries:

Within many countries, there is a rise in the number of new library facilities or renovations of libraries. A range of case studies of libraries built recently in the UK, the Netherlands, France and other countries were presented and discussed, along with

relevant reports such as those by Sir Brian Follett for the UK government.

Questions addressed at the seminar

Learning methods

- How integral are libraries to the academic business of tertiary institutions, and is this likely to increase or decrease?

- How will new pedagogies and 'learner centred' courses, together with distance delivery, affect the design and management of libraries?

- What potential requirements should libraries consider with regard to increasing 'massification' and the expanded use of distance learning?

- Is the library also responsible for providing study facilities and technology tools to students? What are current models for this approach?

Technology

- What barriers and opportunities exist in the new emerging technologies? Will they see an increase in the size of libraries or a decrease? Which floor areas will increase and which will decrease?

- With the slow advances in on-line availability of books, due to copyright barriers, what will the continued growth rate for hard copy collections be, and what will be the likely impact on spatial requirements over the next decade?

- How will on-line services replace certain library activities and what new activities will be required?

Management

- What are the drivers of operating costs in libraries? Should reference libraries embark on ambitious programs to digitise their unique resources rather than investing in new buildings?

- Are there any implications for differentiation between undergraduate and post-graduate collections; the contrast between central collections (such as exist at most universities) with dispersed discipline collections (such as at Oxford); and the emergence of on-line documents such as journals?

- How will a decentralised library be organised?

Facilities

- To what extent do tertiary libraries contribute to 'social capital'?

- To what extent will they collaborate with external users (e.g. industry, the public) requiring reconsideration of the placement of libraries with extended hours?

- What is the likely future mix of spatial activities and functions?

Key findings

A group of experts from 16 countries were present at the two day event. The 28 participants presented 12 case studies, collaborated in four working groups around the themes and debated the issues with some passion. For much of the two days, discussion focused on the role of the university and whether it will diminish in relevance.

Many writers and thinkers in tertiary education are predicting the demise of the university. For example, Dr. Michael Peters, writing in the August 1996 issue of the *Australian Journal of Education*, noted that '…one might say that the…university in postmodernity will come to exist solely in cyberspace with no need for large installations, campus buildings, libraries, lecture theatres. No need, perhaps, for large multicampus metropolitan universities'.

But it was agreed that this was too radical a future. A number of participants on the electronic discussion group (EDG), which was running concurrently with the Expert Meeting as a prototype 'virtual conference', concurred.

It was pointed out, for example, that the University of Northumbria at Newcastle, UK, has a converged library, computing, telephones and corporate planning department and that they believed that the good traditional library has extensive collections in the fields it covers. An equally important feature is that it has *only* those items and is very *selective* – irrelevant material is excluded. The material is also well ordered and indexed for easy retrieval. This model – comprehensive, selective and well-ordered at the same time – is intellectually required for electronic as for print material.

The balance between local and national/international provision will of course be different but each community of users is going to continue to need an organising force covering community interests. This does not preclude individual community members using other access channels – just as they always have with print.

Northumbria University is joint Project Leader of a five-university consortium exploring how the hybrid library will work in social, economic and educational terms - it is believed that the technology will be driven by bigger markets than education. The project, called HyLiFe, is part of the UK eLib electronic libraries programme for higher education, and is one of five hybrid library projects (details of the eLib programme are available via http://www.ukoln.ac.uk).

Another view supporting a 'physical/digital' campus appears in the 1998 OECD report *Redefining Tertiary Education*. It notes that 'acceptance of the value of sensitively designed new building and equipment in fostering learning and positive attitudes towards

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Stockholm University Library

study lies behind some highly imaginative projects visited by review teams – in Denmark, Sweden, the UK, the US and Japan. A marked feature is overall quality of design and materials for example in the new libraries-cum-learning-cum-social centres. The combination of advanced technology with a welcoming ambience of the multi-purpose complexes, which are increasingly becoming the main centres of institutions, is impressive'.

It was in this context of predicted change that the participants at the seminar sought to agree to a set of principles which will shape the redesign of current and future libraries and resource centres for the tertiary educational sector. While a complete report will be submitted and key recommendations presented, the participants wished to convey to decision makers the following points which summarise their unanimous opinion:

1. New and renovated libraries will provide a visible, identifiable and physical image of the future university (in its traditional and digital modalities) to attract the best students, teachers and researchers.

2. As technological evolution is unknown and unpredictable, new facilities have to include as much flexibility as it is possible whilst meeting today's expressed needs.

3. The new library is integral to learning by educating towards a critical use of the networked resources. The need for staff and students to be trained and retrained is recognised and must be budgeted for.
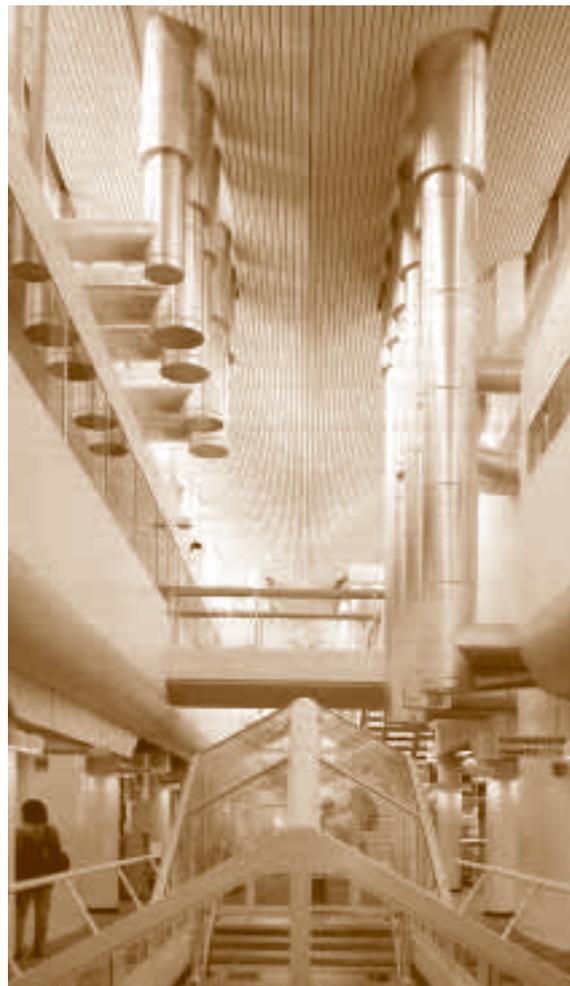
4. Protecting the cultural heritage remains one of the fundamental roles of libraries. But this is to be accommodated with a new mission regarding guidance in the digital world for students and professors and, whenever possible, the whole community.

The report on libraries and resource centres for tertiary education will soon be available through the PEB Secretariat.

Relevant Web Sites:

- The Library Association – National Committee of Inquiry into Higher Education: Evidence of The Library Association: http://www.la-hq.org.uk/dear_la.htm.
- The UK Office for Library and Information Networking: http://www.ukoln.ac.uk/.
- RERO: *Réseau des bibliothèques romandes et tessinoises*, (Director: Bernard Levrat): http://www.rero.ch/.

For additional sites, see page 17.

THE ECOLOGISATION OF SCHOOLS IN AUSTRIA

Austria is one of 10 countries involved in the OECD CERI (Centre for Educational Research and Innovation) Environment and School Initiatives (ENSI) project. Begun in 1986, ENSI is one of the first international projects to promote development and research in ambitious, environment-oriented instruction. In Austria, there is an 'Ecologisation of Schools' (ECOLOG) programme which currently involves 22 pilot schools, from primary to secondary technical school level, participating in the ENSI project.

What is meant by the ecologisation of schools?

Condensed to one sentence, ecologisation means shaping human interaction with the environment in an intellectual, material, spatial, social and emotional sense to achieve a lasting/sustainable quality of life for all. This definition clearly shows that ecologisation is not a one-time affair, but an on-going task. Morever it concerns not only schools, but all institutions within the social fabric. The term environment embraces the natural and technical environment as much as the social and intellectual environment.

What are schools doing if they strive for ecologisation? They launch initiatives at three levels, at the pedagogical, at the social/organisational, and at the technical/economic level.

At the **pedagogical level,** schools aim at creating stimulating and meaningful learning experiences and at involving pupils in ecological ways of thinking, acting, and feeling at school, in their families and communities. This process is characterised by a shift of priorities from the prevalence of learning tasks structured by systematic knowledge to a focus on complex, real-life low-structured situations which raise controversial issues; from an orientation towards individual subjects to interdisciplinary inquiry; from passive learning of facts, rules and principles to the active generation of knowledge by pupils and teachers in the local contexts of action, to a pro-active shaping of the environment, and to promoting a critical, reflective attitude towards given stocks of knowledge; from top-down communication of learning requirements to active participation of pupils in negotiating the conditions of learning, and to promoting individual reflection by pupils about the quality of their learning. The focus here lies on a dynamic concept of learning according to which pupils do not only acquire knowledge and experiences for the future, but shape their living and working conditions constructively in the present (Elliott 1994, 1998).

At the **social/organisational level,** schools aim at building and cultivating a culture of communication and decision-making and at developing a social climate which is characterised by mutual recognition and respect. This implies a shift of priorities from isolated teachers and pupils towards a team structure and social continuity; from the pre-determination of framework conditions to negotiating binding rules, to assigning responsibilities to pupils; from detachment from the social environment towards active construction of external relations.

At the **technical/economic level,** schools aim at the ecologically sound and economic use of resources. This includes measures to save resources; to reduce waste; to design indoor and outdoor space in an aesthetic and ecologically viable way; and to promote healthy living conditions.

Ecological schools are schools which become active at all three levels. They relate pedagogical, social/organisational and technical/economic initiatives to each other in a constructive way and make the pursuance of these efforts an inherent feature of their educational philosophy. Ecologisation, in this sense, involves awareness and behaviour, social structures and observable as well as quantifiable effects on the quality of the environment. In another sense it is an extended view of education.

What is innovative in the 'Ecologisation of Schools' project?

Its novelty consists, first and foremost, of three long-term, educational-policy developments. At the first level – the individual schools – it is the **step from temporary individual initiatives to ecologically sustainable structures and to a combination of pedagogical, social and technical/economic initiatives.** In this respect, ecologisation can be regarded as an important contribution to school development. Many innovations at school are individual or group initiatives launched by committed teachers, school heads, and pupils, and tied to their motivation and involvement. Most innovations come to an end when commitment falters or when external support is withdrawn. Few innovations actually have a transformative impact on the culture of the institution as a whole.

The ecologisation programme therefore attempts from the very outset:

- to win over a 'critical number' of teachers in a school by persuasion, good examples and open communication;

- to transform passive concern into active involvement and to create the necessary conditions which allow parents and pupils to take part in reflection, in planning and in decision-making processes;

- to set up an organisational structure which ensures the quality and the stability of the ecologisation process;

- to pool existing initiatives, use synergies and embed them in the curriculum;

- to create mutual expectations and traditions with respect to acceptable attitudes and behaviour.

At the second level – that of the educational system – it is the **step from pilot schools to an inherent feature of the system of education**. This means developing a strategy to spread ecological development processes as widely as possible. Many reform initiatives are burdened by the fact that they are limited to a few, rather privileged schools, particularly because the required investment in terms of training and resources cannot be afforded on a general scale. Therefore, a strategy is needed which stimulates and supports a dynamic development within schools, involving teachers, students, administrators, support staff such as secretaries and caretakers, and parents.

There is probably no topic better suited for developing and testing such a strategy than the ecologisation of schools, for several good reasons:

- Almost all schools have already taken initiatives in this area, not least because they are searching for new forms of meaningful learning.

- Public interest in developments of this kind is large. Ecologically-driven initiatives therefore provide opportunities to establish links with external institutions (e.g. municipal administrations, cultural institutions, the business community etc.).

- Schools which become ecologically active do not only gain status, but gain a certain influence on their environment. They are no longer at the receiving end of social demands only, but also in a position to effectively assert demands towards society.

The development of a sound strategy for the dissemination of initiatives aiming at ecologisation is a pioneering feat whose impact would reach far beyond the specific concern of the ecologisation of schools.

At the third level – competences – it is the step **from the competences of a minority of teachers and headmasters to an intrinsic professional feature of the teaching profession and of school management**. A survey of environmental education policies in Austria has shown that innovative practice is only rarely generated in teacher training institutions, but almost exclusively in schools. Teacher training has been identified as a weak point in the educational system (House, Eide, Kelley-Lainé, 1994). The second issue within the ecologisation programme will therefore be teacher training. In Austria, e.g., three teacher training institutes and three university departments will be developing and testing viable curricula to prepare students for a teaching practice guided by the educational philosophy of the ecologisation program. These curricula will include, inter alia, the involvement of trainee teachers in ecologisation initiatives as part of their training, and the close co-operation with schools which have taken on a leading role in this field.

Framework for the ecologisation of schools

An appropriate framework is called for if the ecologisation of schools is to become an inherent feature of the educational system. Three factors deserve particular attention in this context: the regional support system, the incentive system, and the obligation of schools to engage in a self-organised development process, combined with self-evaluation.

The regional support system

Building a regional support system is a fundamental task for the coming years. In Austria, three distinct development phases have been envisioned so far:

- The 22 schools involved in the pilot phase (1996-98) will receive direct support and guidance from the ENSI team members. Another 30 schools are loosely associated with the project and receive information about the ongoing activities.

- A larger number of schools will be invited to participate in this movement through a national competition (1998-99). During this phase also a regional support system will be established to support the further extension of the program.

- The third phase will extend the ecologisation programme to a still wider range of schools than those participating in the competition. This phase and other extension phases will then be developed together with the facilitators from the support system. A first medium-term goal is to reach a critical mass of about 15% of all schools by 2005.

From today's viewpoint, the support system will have one major task to fulfil: to organise further education and training and – closely connected to that – to promote the exchange of experiences between schools in order to derive maximum benefit from the pool of competence which is accumulating at the schools.

The schools must become the central agents of the further extension of the movement and must be able to develop specific profiles through their involvement. By mutual communication and support, teachers, pupils, and heads of interested schools should be able to gain experiences with ecologisation processes, without having anything imposed on them. 'Innovations move along personal relationships' (House, 1994).

It is assumed that the development of professional competence in organising communication in order to disseminate innovation will become increasingly important, irrespective of the ecologisation programme. First experiences were gained in the programme 'Teachers reporting from practice', where teachers share their experience on innovative projects with interested colleagues in afternoon events (Piber, 1993); this programme could be further developed into a 'Schools reporting from practice' programme. The elaboration of effective means of stimulation and external support for school innovations will probably become a major area of development for regional educational infrastructures.

The incentive system

Many school-based innovations remain a one-time affair because their benefits are not always immediately discernible, while the disadvantages – which are part and parcel of every innovation – attract ready attention (let alone the fact that criticism tends to be more appreciated than praise, and that innovation is often considered a threat and devaluation of the status quo). These problems are of a general nature and may be overcome by:

- promoting an attitude among teachers which holds them responsible not only for their classroom teaching but also for the further development of their school;

- promoting an attitude which sees innovations as inherent features of any good school and which therefore deserve recognition per se;

- developing a reliable and credible process for evaluating the quality of innovations at schools.

Another reason why ecological initiatives often die away soon, is that schools do not benefit financially from the savings made. In Austria, a system is currently being elaborated according to which savings made in the course of ecologisation initiatives may remain fully or partly at the school (bonus system). The basic problem is how to devise a fair system which neither puts schools which have used their resources sparingly so far at a disadvantage, nor rewards those schools which have wasted their resources in the past.

An interesting and less complex approach to this problem has come up in a Tyrolean community: a secondary general school received an advance grant of ATS 10,000 in recognition of its pledge to use energy resources more sparingly. The actual amount of savings would then be ascertained at the end of the year. Under this concept an advance grant is given in good faith and accounted for later on.

Apart from financial incentives there are other motives that weigh heavier than material considerations. One of the most important motives is recognition by other persons. Even if schools are entitled to keep part of the saved resources the material value may be less important than its symbolic value as an indication of public recognition. Other relevant incentives are:

- the firm belief in making a socially important contribution,

- an opportunity to be able to actively shape conditions of work and life,

- an observable gain in the quality of life.

The demands for accountability and school development

The more autonomy schools enjoy, the more they are accountable to the general public for how they use human and material resources. It is important that schools take on this responsibility themselves and do not wait until they become dependent on external evaluation (Posch, Altrichter, 1997). In Austria, a self-evaluation concept is currently being developed which closely associates evaluation and development and which leaves the individual schools with the main responsibility for quality evaluation

and development. Under this concept, schools will be given an opportunity to credibly present their readiness for innovation and their achievements to the public by way of a school program (Federal Ministry for Education and Cultural Affairs, 1997).

School environmental programs will become mandatory in Austria in the year 2002/2003. The programme on 'Ecologisation of Schools' is intended to provide an opportunity for schools:

- to gain first experiences with linking development and evaluation activities and initiatives to provide credible accounts to the public,

- to prepare themselves for the expected mandatory periodic elaboration of school programmes.

This development process takes place under difficult conditions: schools must cope with new demands on the part of pupils and of society in times of tightening resources. In one respect, however, the overall situation of schools has improved: the scope for individual decision-making has become broader. However, the schools will still have to find ways and means to exploit this scope for the further development of the quality of teaching and of learning, the quality of life in schools, and the quality of the local environment. The ecologisation programme could make a significant contribution to designing, shaping and stabilising these spaces of discretion.

What does ecologisation mean for PEB?

PEB has been pursuing an environmental agenda for much of its 25 year long mandate. With Austria it co-hosted a conference on schools in the environment in the late 1980's, and just last year convened two conferences on the school and the environment in Italy and the UK.

PEB sees the 'Ecologisation of Schools' activity as an opportunity to combine the up until now separate activities of:

- environmental education being lead by the internationally active ENSI initiative;

- learning through school grounds being lead by the increasingly international 'Learning Through Landscapes' initiatives;

- environmentally sustainable school design which is a major thrust of the PEB programme of activities.

These previously disparate activities have all achieved excellent results as separate programmes and initia-

tives. It is now time, however, to combine these efforts into a holistic systematic approach targeting both the policy and the school levels.

It is with this strategy in mind that the three programmes are collaborating in a conference in Linz in October this year. (This will be shortly after an OECD Workshop on Education and Sustainable Consumption, being jointly organised by the Environment Directorate and CERI, with close ENSI involvement, to be held in Paris, 14-15th September 1998.)

Proposed conference

ENSI, PEB and the Austrian Government are hosting a conference on the ecologisation of schools in Linz, Austria from the 3rd to the 7th of October. Further details may be obtained from:

Dr. Günther Franz Pfaffenwimmer
Austrian Federal Ministry for Education & Cultural Affairs
Department for Environmental Education
Minoritenplatz 5, A-1014 Vienna, Austria

Tel: 0043/1/53120/2532 Fax: 0043/1/53120/2599
e-mail: günther.pfaffenwimmer@bmuk.gv.at

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Posch, P., Altrichter, H. (1997), *Möglichkeiten und Grenzen der Qualitätsevaluation und Qualitätsentwicklung im Schulwesen*. Innsbruck: Studienverlag.

Posch, P., Mair, G. (1997), 'Dynamic Networking and Community Collaboration – The Cultural Scope of Educational Action Research'. In: Hollingsworth, S. (ed.): *International Action Research – A Case Book for Educational Reform*. London: Falmer, 261-271.

This article is based on a paper by Peter Posch.

USEFUL WWW LINKS

FOR ARCHITECTURE:

International Union of Architects
http://www.uia-architectes.org

'The UIA is an international non-governmental organisation founded in Lausanne in 1948 to unite architects from all nations throughout the world, regardless of nationality, race, religion or architectural school of thought, within the federations of their national associations. The UIA represents over a million architects throughout the world through national architectural associations that form the 91 UIA Member Sections.' It has a number of activities including Educational and cultural spaces and holds a conference once a year on this subject (see PEB Diary).

American Institute of Architects
http://www.aiaonline.com/

Committee on Architecture for Education (CAE) at the American Institute of Architects. 'The Committee is a large (about 2400) and active group of architects and allied professionals concerned with the quality and design of all types of educational, cultural, and recreational facilities.' About three quarters of its members design K-12 schools and the other quarter do university level. 'The CAE identifies national educational facility issues critical to architects and works to strengthen relationships with allied organizations, client groups and the public' through conferences and various types of publications.

Royal Australian Institute of Architects BEE Programme
http://www.raia.com.au/bee/bee.htm

'Built Environment Education (BEE) is a project of the RAIA that delivers information on the built environment for schools K-12. The BEE project develops curriculum resource materials for teachers and students. It also provides teacher workshops, special projects such as Architects in Schools and BEE Networked – a network of schools that receive information on ways to implement activities on the built environment in Key Learning Areas. Each State has a local BEE Team that develops local programs for schools. The BEE Teams' members include teachers, architects, education department and association representatives.'

The Royal Institute of British Architects
http://www.riba.org/riba/index.htm

'The RIBA is the first and most famous architectural institute in the world. Founded in 1834, its aim to advance architecture for the common good, remains the same. But its tactics change as the world changes. The RIBA is its members. A voluntary, democratic self-financing and independent association of 30,000 people, worldwide, who share the same knowledge base and the same concern for the built environment. The RIBA is busy developing its knowledge in a way that is practical, ethical and forward looking. Because the more we all know about good design, the more good design will flourish and help us succeed.'

CERDG The Children's Environments Research and Design Group, School of Architecture and Urban Planning, University of Wisconsin-Milwaukee
http://www.uwm.edu:80/dept/cerdg/

The Children's Environments Research and Design Group [CERDG] at the University of Wisconsin-Milwaukee is 'a fledgling group of individuals at the School of Architecture and Urban Planning, committed to the research of issues related to children, youth, and environment and application of research in the design of children's environments… The Children's

Environments Research and Design group is currently engaged in or thinking about starting a number of research and design projects focused on children, youth, and their environments.' Their activities are listed in the site.

FOR LIBRARIES AND RESEARCH:

The Virtual Library
http://vlib.stanford.edu/AboutVL.html

The VL is the oldest catalog of the web, created by Tim Berners-Lee, who also created the web itself! Unlike other catalogs and search engines, 'it is run by a loose confederation of volunteers, who compile pages of key links for particular areas in which they are expert'. While it doesn't have the same breadth of coverage of the commercial or robotic indexes, pages in the VL are usually far more useful, due to the care and expertise that have gone into writing them. 'Individual indexes live on hundreds of different servers around the world. A set of catalog pages linking these pages is maintained at Stanford University (California), by Gerard Manning. Mirrors of the catalog are kept at Penn State University (USA), East Anglia (UK) and Geneva (Switzerland).'

Gabriel – Gateway to Europe's National Libraries
http://bermudix.ddb.de/gabriel/

This site allows a search of all the WWW services of Europe's national libraries. They may be browsed by country or type of service. Information on collaborative projects and partnerships of the Conference of European National Librarians (CENL) is also available here.

**AskERIC Service for Educators**
http://www.askeric.org/

'AskERIC is a personalized Internet-based service providing education information to teachers, librarians, counselors, administrators, parents, and others throughout the United States and the world.' ERIC, the Educational Resources Information Center, offers 'a variety of services and products on a broad range of education-related issues.' The ERIC Database can be accessed from this site.
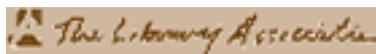
The Association for Librarians and Information Managers
http://www.la-hq.org.uk/

'For over 100 years The Library Association has been promoting and defending libraries, for those working in them and for the people who use them. By representing everyone who works in the library and information sector, The Library Association acts as a focus for discussion, and helps the profession speak effectively with one voice.'
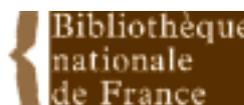
Bibliothèque nationale de France
http://www.bnf.fr/

The web site of the national library of France gives access to its electronic catalogues: BN-OPALE for books and periodicals, and BN-OPALINE for all other materials. It also provides information about the organisation of the library's new Tolbiac site on the Seine, the history of the library, and cultural events. Many sections exist in English at the suffix institution/anglais/sommgb.htm.

The UK Office for Library and Information Networking
http://www.ukoln.ac.uk/

'UKOLN is a national centre for support in network information management in the library and information communities. It provides awareness, research and information services.'

BOOK REVIEWS

SPECIAL PLANNING FOR SPECIAL SPACES
http://www.scup.org/phe-bks.htm

Facilities and academic planners, architects, and anyone interested in the impact of special spaces on the campus learning environment will find this book to be a valuable resource. To commemorate the twenty-fifth anniversary of SCUP's Planning for Higher Education, the premier journal of higher education planning, SCUP has published this resourceful anthology dedicated to facilities planning. Twenty-three articles and book reviews, published in *Planning* in the 1990s, have been selected from past issues of the journal and, in some cases, updated for this publication. Organized into sections on four core spaces – cultural, instructional, student, and outdoor – this book aims to provide new insights and strategic planning tools for occupants and planners alike.

Special Planning for Special Spaces, edited by Persis Rickes, 1997, 149 pp, paper, ISBN 0-9601608-5-X, US$29.95. All articles originally published in Planning for Higher Education, ISSN 076-0938

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A Foundation to Uphold: A Study of Facilities Conditions at U.S. Colleges and Universities **(Reviewed by Keith Covey)**
http://www.scup.org/phe-bks.htm

This the latest in a loosely related series of survey reports, dating back to 1974, describing a disturbing decline in the physical condition of most of America's campuses and calling for action to reverse the trend. It offers the best data yet, including indications that some institutions, governing boards, and legislatures are beginning to heed the message. But the news is still alarming. Based on a 1995 sampling of 400 colleges and universities, American higher education has at least a $26 billion backlog of deferred maintenance and almost $6 billion in urgent needs.

Financial and facilities managers may feel they've heard it all before, thanks largely to past research and advocacy sponsored by their professional associations. They will find here both discouraging news and helpful, even hopeful, information.

But legislators, members of governing boards, presidents, deans, and academic planners new to the subject will find this a sobering introduction. Harvey Kaiser argues in the opening chapters that these backlogs (read as worn-out buildings and failing utility systems) threaten the ability of campus facilities to continue supporting educational missions. To reverse the decline, funding for repairs and renewal may have to displace some program support and new facilities in priority and in budget debates. The report's purpose is to 'provide ... policy guidance for federal, state, and local governments, statewide agencies of higher education, higher education associations, and institution leaders'. The text and survey analysis aim directly at that audience.

This document was developed collaboratively by The Association of Higher Education Facilities Officers (APPA); the National Association of College and University Business Officers (NACUBO); and Sallie Mae and its investment banking subsidiary, Education Securities, Inc. [Sallie Mae is a financial services company which provides funds for higher education loans]. It is a descendant of APPA and NACUBO's 1989 survey, *The Decaying American Campus*. However, with 400 responding campuses versus 209 in the earlier study, this one allows more detailed and statistically valid analysis.

Kaiser, whose four-chapter review and analysis opens the report, is the best-known, most articulate champion of this topic. He has written, spoken, and consulted widely on facilities management and deferred maintenance. For many years the senior vice president for facilities administration and associate professor of urban planning at Syracuse University, Kaiser is now a private consultant. Jerry Davis, who authored the survey research report, is director of Sallie Mae's education and student loan research department.

What is deferred maintenance? It is the 'backlog' of major maintenance projects unfunded in operating budgets and deferred to a future budget cycle. Urgent needs are 'conditions that, if not attended to now, will ... become even more costly

to remedy in the future'. How can a survey help solve the problem? By showing that it is pervasive and systemic and by suggesting solutions.

This document contains both cumulative national statistics and benchmarking data by institutional type, illuminating conditions in eight institutional categories. It expands on its predecessor's range by covering not only current and planned commitments to new construction and remodeling, but also the extent to which those commitments address vital needs, the status of efforts to remove barriers to the disabled, and the leadership and actions that contribute most to establishing an institutional commitment to facilities preservations. Finally, the study employs current terminology and data formats that will help colleges, universities, and systems refine data gathering for their own campuses.

Kaiser's chapters begin with an appeal to the public and private sectors to accept their obligation to preserve America's college and university facilities for the benefit of future generations, he sketches the historic context, highlights the findings, and describes the measures required to save our campuses from continuing decline. Here are some eye-catching examples.

> • *History*: Since 1950, American college enrollment has grown sixfold and campus space sevenfold;

> • *Statistics*: In 1994, the median age of campus buildings was 28 years and the average public research university spent only $2.3 million on deferred maintenance, against almost $64 million in accumulated deferred maintenance, and more than $15 million in urgent needs;

> • *Required measures:* 75 percent of the respondents reported strategic facilities planning; 50 percent reported increased funding for facility upkeep; and 80 percent said that the greatest positive factor in addressing the deferred maintenance problem was the priorities of top administrators.

In the concluding chapter, Kaiser frames nine 'policy implications' (attitudes, issues, and actions) that can guide leaders, planners, and decision makers toward changed institutional commitments. A concise, 12-item checklist of tasks may be especially useful. 'Build a constituency of campus support' is the first step. Then, continuing through

data gathering, planning, public information, and funding steps, the list ends with, 'Improve maintenance management to effectively and efficiently use current fund budgets'.

In the 90-page research analysis that is Appendix A, Davis and his staff assembled statistically valid samples for as many types of institutions as possible in various categories, based on Carnegie institutional classifications: public research universities, private research universities, public and private doctoral universities, private baccalaureate colleges, public and private historically black colleges and universities. Those who rely on statistical analysis in their work will appreciate the detail provided. This section should not be overlooked. It makes strong points through clear, detailed text, while avoiding obvious advocacy. With numerous vivid examples, the section is very informative, and the last sentences are troubling for what they reveal about the infrastructure that supports our premier intellectual institutions:

> 'At a large proportion of colleges ADM (accumulated deferred maintenance) is decreasing (…) and it represents a relatively small percentage of their current funds expenditures (…). On the other hand, a similarly large proportion of colleges are experiencing increasing ADM and their ADM amounts represent substantial portions of their budgets (…). The largest ADM problems are at the largest research and doctoral universities'.

Is this the final, definitive work on this topic? I certainly hope not. In returning to it time and again, APPA and NACUBO obviously recognize that the greatest value of such efforts lies in periodic repetition and ever-better information. Periodically renewing their advocacy reaches new audiences and keeps the topic before educational and governmental leaders. Facilities planners will find this report enormously valuable for presenting the deferred maintenance case before their campus leaders and faculty.

This review is taken from a slightly longer version which appeared on the SCUP Internet site referenced above.

A Foundation to Uphold: A Study of Facilities Conditions at U.S. Colleges and Universities, by Harvey Kaiser, research report by Jerry Davis. The Association of Higher Education Facilities Officers (APPA), 1996. 195 pages. ISBN 0-913359-96-3.

THE MANAGEMENT OF BUILDING PROJECTS AT ENGLISH HIGHER EDUCATION INSTITUTIONS
(Review by Grace Kenny)

Someone in the UK system, somewhere, is getting worried about the cost of building (£1.6 billion between 1993 and 1996) and running universities. The National Audit Office has decided to carry out some investigations.

'The Comptroller and Auditor General is the head of the National Audit Office employing some 750 staff. He, and the National Audit Office, are totally independent of Government. He certifies the accounts of all Government departments and a wide range of other public sector bodies; and he has statutory authority to report to Parliament on the economy, efficiency and effectiveness with which departments and other bodies have used their resources'.

On 19 December 1997 he signed a report on the way 'higher education institutions plan, manage and implement their building projects, focusing on ten major academic building projects from institutions of differing sizes and backgrounds', and this after two recent earlier reports on *The Management of Space in Higher Education Institutions in Wales* (NAO, HC 458 Session 1995-96, 28 June 1996) and *Space Management in Higher Education – A Good Practice Guide* (NAO, June 1996). For each of the projects in the study the report looks at three issues – project appraisal, project implementation and governance - and from these issues it draws lessons, criticisms and recommendations, the harshest criticisms being reserved for the first issue on the list.

Governance – The members of university governing bodies are busy, and influential; they meet together rarely, and they often have vested local interests. The NAO thinks that vested interests are not always declared and that the limits on delegated decision-making committees (particularly so far as finance may be concerned) are not always properly formalised. In addition governors do not take enough interest in reviewing the financial returns on major capital projects.

Project implementation – Although the majority of the study projects were delivered to time and budget, the NAO finds that the preliminary stages of a project are not given enough emphasis, that procurement methods may be chosen almost by default; that users should be more involved but encouraged to agree cut-off points to their involvement, that whole-life costing and value engineering should figure more; that enough time should be allowed for proper completion, and for post-implementation reviews.

Project appraisal – This is surely the most important stage in any building project: on it depends whether the project actually happens or not. And here the NAO is scathing: because few if any of the institutions studied do any of the following, the NAO recommends that:

• the assessment of the need for new building projects include 'a quantitative assessment of how existing space is being utilised, and an assessment of the full range of benefits which improved accommodation can bring' (the NAO calls on one of its own 1996 documents for a definition of 'space utilisation', although the idea has been around, and often defined and published, since the 60s);

• 'a full range of options are identified and rigorously assessed, and that appraisals include a comprehensive assessment of risk';

• 'loan finance is selected following a rigorous process of competitive tender, and that the selection process is based on clearly expressed evaluation criteria established in advance'; and

• to spread the 'blame' a little more widely, it also recommends that the Higher Education Funding Council for England should: 'ensure that their revised guidance on option appraisal incorporates a methodology tailored to the specific needs of those involved in investment decision-making within the higher education sector'.

Taking note of the NAO's vocabulary – 'quantitative', 'comprehensive', 'clearly expressed', 'specific', 'rigorous' and 'rigorously' – the message is clear, 'If a thing is not worth doing, it is not worth doing well'.

The Management of Building Projects at English Higher Education Institutions, Report by the Comptroller and Auditor General of the National Audit Office, House of Commons 452 Session 1997-98, 16 January 1998, published by The Stationery Office Limited, available from The Publications Centre (mail, telephone and fax orders only), PO Box 276, London SW8 5DT, United Kingdom (tel + 44 (0)171 873 9090, fax + 44 (0)171 873 8200), price £9.85.

NEW **PEB** PUBLICATIONS
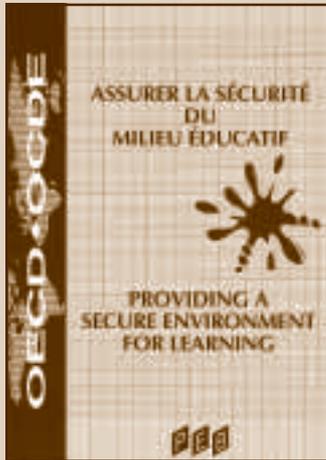
Providing a Secure Environment for Learning

The question of security in schools and universities is becoming a growing concern in many countries. How can violence in both schools and universities be measured and combatted? And how should the very notion of security be tackled?

Whereas security has to date been mainly analysed in terms of material and legal forms of risks (fire, non-compliance of equipment with safety standards...), this publication shows that the human factor should not be overlooked. The organisation of people's relationships should matter both in the building's design and construction stage and in the management of education.

This report follows up the international seminar organised by the OECD Programme on Educational Building (PEB) in co-operation with the regions of Emilia-Romagna and Tuscany. The seminar, also entitled 'Providing a Secure Environment for Learning', took place 27 to 31 May, 1997 in Bologna and Florence, Italy.

This report examines the key issues of the seminar, namely prevention, protection and partnership and considers their social and financial implications.

OECD code: 95 98 01 3P,
ISBN 92-64-05756-0, March 98, Bilingual, 84pp.
FF 110   US$19   DM 33   £ 11   ¥ 2350

Facilities for Tertiary Education in the 21st Century

Within the space of two decades, institutions have recorded an unprecedented increase in student numbers. What are governments' strategies for coping with this increase? Do they rely on new buildings or on greater intensity of use of existing facilities? In what ways do information technologies affect the need for buildings and equipment?

As higher education moves into a new millennium, new problems emerge and politicians, planners and architects must come up with appropriate solutions. These will have to take into account factors such as the location of facilities (whether in urban, suburban or rural areas) and the characteristics of the surroundings (classical, industrial or natural). This report draws on the expertise of professionals involved in the planning, design, construction or management of tertiary education facilities from a diverse range of OECD member countries, and provides state-of-the-art approaches and a selection of case studies.

This report marks PEB's first study on the question of facilities for tertiary or mass higher education. It draws on the contributions presented at a conference entitled 'Towards 2000: Facilities for Tertiary Education', which was organised by the OECD Programme on Educational Building and the Greek Ministry of National Education and Religious Affairs, at Rethymnon, Crete, in November 1995.

OECD code: 95 98 02 1P,
ISBN 92-64-16081-7, 80 pp.
FF 70   US$12   DM 20   £ 7   ¥ 1500

Under One Roof: The Integration of Educational and Community Services in OECD Countries

This report describes the development of integrated service provision, focusing particularly on the implications for local government authorities, planners and architects who have the responsibility of designing school sites which meet the new requirements.

Integrated service is understood here as the practice of integrating on one site some services which are usually provided separately. Experiments with the integration of adult education and community, as well as social and welfare services on school sites, have been carried out in several OECD countries in recent years. The rationale for these pilot policies has usually related to the need to co-ordinate services more effectively or to maximise the use of buildings and equipment.

As schools and educational facilities become more sophisticated and expensive, the demand for a wider access to them grows in local communities. Governments, concerned with improving efficiency, are reluctant to duplicate provision of costly facilities. In the pursuit of the goal of lifelong learning, some educational authorities also see virtue in promoting greater integration of adult education, community services and basic education facilities on a single site.

In October 1996 the Programme on Educational Building held a conference in Stockholm on this theme, entitled 'Under One Roof'.

Case studies from Finland, Italy, Japan, the Netherlands, Quebec, Sweden and the United Kingdom are presented in Chapter 2. They demonstrate the universality of the objectives of more efficient use of buildings and facilities and closer integration of schools with their local communities and other services. The case studies provide a wealth of examples of solutions to the practical problems of integrating different services catering to adults as well as children.

OECD code: 95 98 03 1,
ISBN 92-64-16110-4, 80pp.

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CHANGES AT THE SECRETARIAT

Kenn FISHER

PEB would like to thank Kenn Fisher for acting as Head of the Programme for the past 15 months. His attention to the pedagogical and social implications of educational architecture as well as his concern for increasing spatial and environmental awareness were greatly appreciated. We wish him all the best as he returns to his position as Head of the Educational Planning and Design Unit of Woods Bagot, an architecture and planning practice based in Adelaide, South Australia.

Richard Yelland has now returned from secondment to the University of Adelaide to head both PEB and the OECD Programme on the Institutional Management of Higher Education (IMHE). The synergy between the two programmes has been demonstrated in several joint activities in recent months, and this co-operation will continue to deepen in future.

Richard YELLAND

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PEB DIARY

June

9-11 – *Managing for Sustainability - Endurance through Change.* This symposium is part of the International Council for Building Research Studies and Documentation (CIB) World Building Congress to be held in Gävle, Sweden.
Contact: Prof. Peter Brandon, University of Salford, Tel.: 44 161 295 51 64, Fax: 44 161 295 55 53, e-mail: p.s.brandon@surveying.salford.ac.uk.

July

16-17 – A workshop on *Strategic Asset Management for Tertiary Institutions*, organised by PEB and the OECD Programme on Institutional Management in Higher Education (IMHE) in co-operation with the New South Wales Department of Education and Training. It will be held in Sydney, Australia.
Contact: PEB Secretariat, Tel.: 33 (0)1 45 24 92 86, Fax: 33 (0)1 42 24 02 11, e-mail: patricia.emburey@oecd.org.

27-30 – *14th UIA/UNESCO Seminar.* This year's annual seminar of the International Union of Architects will look at architectural elements that create an environment encouraging lifelong cultural enrichment. It will be held at Cranbrook in Bloomfield Hills, Michigan.
Contact: Mr. John J. Castellana, FAIA, Tel.: 1 248 338 45 61, Fax: 1 248 338 02 23, e-mail: casty@bignet.net.

September

1-4 – *Walking the Tightrope: Competitive Collaboration?* is a joint conference of the Association for Tertiary Education Management (ATEM) and the Australasian Region of the Association of Higher Education Facilities Officers (AAPPA), in Darwin, Australia.
Contact: Conference Secretariat, Tel.: 61 8 898 16763, Fax: 61 8 898 16764, e-mail: meeting@taunet.net.au.

7-9 – *IMHE General Conference: The Lifelong Learning Challenge for Higher Education: Competition or Co-operation* will take place at the OECD in Paris.
Contact: IMHE Secretariat, Tel.: 33 (0)1 45 24 92 24, Fax: 33 (0)1 42 24 02 11, e-mail: monique.collin@oecd.org.

14-16 – *The Concept of the Multi-Site University* is one of IMHE's seminars on the response of higher education institutions to regional needs and is organised in co-operation with the University of the Aegean in Rhodes, Greece.
Contact: IMHE Secretariat, Tel.: 33 (0)1 45 24 92 24, Fax: 33 (0)1 42 24 02 11, e-mail: monique.collin@oecd.org.

21-23 – An international conference on the quality of the classroom: functional aspects and maintenance, organised by the Austrian Federal Ministry for Education and Cultural Affairs, will be held in Vienna.
Contact: Mr. Peter Gattermann, ÖISS,
Tel.: 43 1 505 3742 253, Fax: 43 1 505 3742 255.

October

3-7 – A conference on the ecologisation of schools will be hosted by the Austrian Government, ENSI and PEB in Linz, Austria (see article on pages 12-15).
Contact: Dr. Günther Franz Pfaffenwimmer, BMUK, Tel.: 43 1 53120 2532, Fax: 43 1 53120 2599, e-mail: günther.pfaffenwimmer@bmuk.gv.at.

4-7 – *CEFPI's 75th Annual International Conference and Trade Show.* The Council of Educational Facility Planners International will hold this event in Vancouver, British Columbia. Contact: CEFPI, Tel.: 1 602 948 2337.