

UIA
BUILT ENVIRONMENT
EDUCATION GUIDELINES



Union Internationale des Architectes
International Union of Architects

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I. General Introduction

The future quality of the built environment will be determined by the children of today. Their ability to make sound, informed decisions will depend on the knowledge, skills and abilities developed as a result of their education.

Critical thinking, responsible citizenship, cultural literacy, social relevance and environmental sustainability all can be addressed through using issues of the built environment to teach traditional curriculum material.

Ginny Graves¹ has defined Built Environment Education (BEE) in the following way:

Architecture and other facets of the material culture are the focal points of Built Environment Education. For instance, it includes teaching and learning about city planning, architectural and landscape design, preservation of historic sites, and the issues and challenges raised by these activities. In general, the means and ends and the conditions and consequences of human interventions in the natural environment comprise the subject matter of Built Environment Education. This includes teaching students to care for the built environment as it fits into the natural environment.

Built Environment Education pertains to a great variety of places, objects and processes. Parks, streets, schools, statues and signs are included. So are recycling of resources and developing of model communities. And it refers to decision making about public issues, such as saving historically significant sites and balancing the sometimes conflicting goals of environmental protection and economic development.

Built environment educators want to increase the knowledge of their students about the interrelationships of humans with their environments in the past and present and in different parts of the world. They also want to develop critical thinking skills in response to environmental issues. And they hope to foster positive attitudes about environmental stewardship and historic preservation toward the end of high-quality built environments designed to be aesthetically pleasing, functional, safe and responsive to the various needs of different people.

The Built Environment Education UIA Work Programme has produced the following guidelines to help architects all over the world in their efforts to collaborate successfully with teachers and students. The guidelines offer three valuable approaches to Built Environment Education:

Architects in Schools guideline for organising effective practical collaborative exercises for architects, students and teachers in schools

Curriculum Resources guideline for generating high quality built environment teaching materials

Teacher Training guideline to give teachers sufficient knowledge and understanding of architecture and the environment.

For the purposes of these guidelines, the following student or pupil levels have been adopted:

Level	Years	Age (years)
Pre-School – including Nursery and Kindergarten	K	2–5
Primary – including Elementary	1-6	6–12
Middle – including Basic	7-8	13–15
Secondary – including High	9-12	16–18

¹ Ginny Graves is a former education director with the American Institute of Architects.

2. Architects in Schools

A guide to planning and conducting Architects in Schools programmes

2.1 Introduction

The built environment is the framework for all human activity and interaction, it is all pervasive, we give it form and it forms us.

The purpose of this guide is to enable teachers and architects to combine their professional knowledge and skill in interactive programmes designed to enable children to develop a critical appreciation of the built environment and of the processes that determine the form and quality of that environment.

Architects in Schools (AIS) programmes will vary in scale and type depending on the culture and economy of the school community and the age of the children involved. This guide therefore, does not set down detailed arrangements for conducting programmes; it does however provide general guidance to teachers and architects on planning and conducting programmes that are relevant to their particular community.

2.2 Objectives

The objectives of Architects in Schools programmes are to:

- 2.2.1 bring about an awareness and understanding of the built environment and its relationship and interdependence with the natural environment
- 2.2.2 provide a resource for students and teachers to enable the study of traditional curriculum subjects with a focus on issues related to the built environment
- 2.2.3 help students and teachers analyse their surroundings, showing them that built structures result from decisions taken by a range of people and to illustrate how they can be part of that process

2.2.4 involve students and teachers in the design process by bringing the analytical and problem solving methods of design into the school

2.2.5 where possible, involve students in projects with a tangible end product.

2.3 Programme planning

2.3.1 Management and funding

It is preferable that the Member UIA Section appoints a steering committee to oversee the conduct of AIS programmes which are to involve a number of schools.

The membership of the steering committee should be architects and teachers.

The funding requirements will be determined by the number of schools involved in the programme and whether the participating architects are volunteering their time or whether they are to be paid. It is of course quite possible to conduct AIS programmes with very little money if the participants do not charge for their time. However, it is preferable to conduct programmes on a professional basis as this establishes clear obligations and a greater sense of responsibility.

Since AIS programmes are intended to be part of the formal education programme in schools, where possible it is best to arrange for the education authority to provide funding for the programme. If this can be achieved, it has the added advantage of committing the authority to the principles of Built Environment Education. In situations where this is not possible, the school communities and the participating architects need to agree on how to gather the necessary resources for the programme.

2.3.2 Selection of a coordinator

For AIS programmes in which there are to be a number of schools participating, it is advisable for the steering committee to appoint a coordinator. The person selected for this role will have good management, communication and inter-personal skills and will probably come from an architectural or education background.

The coordinator's role will involve organising the steering committee meetings, assisting in the selection of participating schools and architects, seeking resources and funds for the programme, administering the relationship between the architects and the schools involved in the programme and compiling reports on the programme.

2.3.3 Selection of participating architects

The steering committee should take responsibility for selecting the architects to participate in the programme and matching them to the participating schools. This task is important because architects are not professional teachers and yet will have to relate well with children. It should be remembered that some people communicate better with older students and some with younger students.

The criteria for selecting the participating architects should include:

- experience as a practicing architect
- an ability to enthusiastically communicate to teachers, parents and students the objectives of the AIS programme
- an interest in education and an ability to relate to students
- strong organisational and inter-personal skills.

2.3.4 Selection of participating schools

The steering committee should only select schools which actively seek participation in order to achieve defined educational objectives. Experience indicates that programmes imposed on schools are not successful because they lack the support of the broad school community.

Achieving the right match between participating schools and architects will require a consideration of geographic location and the mix of senior and junior schools.

2.4 Conducting a programme

2.4.1 Commencement meeting

When the selection and matching of the schools and the architects is completed, a commencement meeting should be convened by the programme coordinator. The meeting should be attended by the steering committee, the participating architects and representatives of the participating schools.

The coordinator should chair the meeting and the agenda should cover:

- a welcome and explanation of the AIS objectives by the Chair of the steering committee
- a brief description of AIS case study or successful programme by the coordinator as a familiarisation or 'warm up' session
- advice on which school each architect is to work with
- resources available for the programme - explain the programme
- programme time frame
- programme report
- concluding meeting.

The meeting should then recess, so that the school representatives can have a discussion with their architect. Following the recess, the meeting should reconvene for a short question and answer session to clarify any issues that are not clear to the participants.

2.4.2 Conduct of programmes

It is recommended that the architects should commit about 60 hours of student contact time to the programme, to be conducted preferably in one semester in the school to which they have been assigned.

Resources for AIS programmes are determined by the school's socio-economic environment. In affluent communities, the architects will probably be remunerated for their time and funds will be available for materials and programme activities. However, AIS programmes can be successfully conducted on a voluntary basis in practically any school by committed architects and teachers.

The nature of that programme should be determined by the teachers discussing with the architect the educational objectives, and agreeing on the most effective manner for the skill and knowledge of the architect to be utilised. The architect is expected to be very pro-active, but it should be remembered that AIS is an education programme and therefore the professional educators should ensure that the programme is directed according to sound educational principles.

Once the nature of the programme is agreed, a timetable for the architect's attendance and involvement should be worked out. It is recommended that programmes are conducted during the mid-year term or semester so that all reports can be finalised before the end of the year.

At the conclusion of a programme, a report should be prepared describing and, if possible, illustrating the activities and outcomes of the programme. Reports from each school should be given to the coordinator well before the end of the school year, so the coordinator can compile a comprehensive report covering all the schools involved in the programme for that year. Reports should have appendices containing evaluations of the programme prepared by the students themselves and the teachers.

2.4.3 Concluding meeting

When all schools have completed their programmes and submitted their reports, the coordinator sets up and convenes a concluding meeting or seminar. The main purpose of this meeting is to enable all the schools involved in the programme to give a presentation on their programme, to explain the problems and achievements and to share the experience with schools that may be considering running an AIS programme. The meeting is therefore advertised as widely as possible in educational and school publications. Each school determines how it will make its presentation, which should preferably be done by the students and not take more than 10 to 15 minutes.

The meeting also provides an opportunity to introduce potential sponsors or funding authorities, such as education departments, to the objectives and results of the AIS programme.

3. Curriculum Resources

3.1 Introduction

The future will be influenced by how our children choose to live in their environment. Because the environment includes everything, from nature to built structures and the people who live, work and move about among them, this choice is important. Awareness programmes in schools have emphasised the significance of our natural surroundings, but has the full equation been considered? What we decide to build impacts on our daily lives and the earth we inhabit. It is for our benefit and that of future generations that the architectural profession initiates the development of curriculum resources. These will inform and engage both students and teachers in the exploration of their built environment and how it may be improved, in spite of economic constraints, through cultural, social and political influence.

Of all of the arts, architecture probably has the most direct and inescapable impact on our everyday lives. And, because of its scope, it presents endless possibilities for learning experiences for students of all ages. Built environment topics make excellent vehicles for educating and motivating students in areas as varied as mathematics, literature, music or home economics, and present exciting possibilities for cross-curricular projects and collaboration between teachers from different disciplines.

This *Curriculum Resources* guideline has been developed in parallel with the *Architects in Schools* guideline and the *Teacher Training* guideline. Each approach to Built Environment Education is valuable. *Architects in Schools* programmes offer the most intense and involving experiences for the students, but it is not sustainable for architects to be directly involved in all programmes. The injection of Built Environment Education into the mainstream school curriculum, delivered by the teachers themselves, if it can be achieved, can have extensive and long term effects on a society's understanding of good architecture.

These guidelines cover critical elements that need to be considered in designing a Built Environment Education curriculum resource. They are generic

in character, because every region has different educational, cultural and socio-economic demands which must be addressed if Built Environment Education is to be successfully integrated into the school curriculum.

3.2 Developing curriculum resources

3.2.1 Definition

Curriculum resources include any materials (printed, film, electronic) databases, programmes or networks that can be used by teachers in schools.

3.2.2 Objectives

A programme of education on the built environment will probably have among its objectives the development among students of:

- awareness of the spaces they move and live in
- an appreciation of their architectural heritage
- awareness of roles, rights and responsibilities in the creation of the built environment
- some technical and aesthetic understanding of the built environment
- the vocabulary they need to discuss the qualities of buildings and places and how they relate to the life of a community
- the ability to read architectural drawings.

The students of today are the citizens of tomorrow. The long-term objective is to give them a better understanding of the factors that shape the built environment, so that as adults they will be equipped to make an informed contribution to decisions about it.

3.2.3 Collaboration

It is best to recognise from the start that if we attempt this task alone we will not succeed. There is no point in developing materials that only we, as architects, admire. If they do not convince teachers or the school authorities that they are educationally valuable and practical to implement, they will not be used. It is imperative that a team of architects and teachers together generates the resource. At all levels of schooling, the resources that are preferred by teachers have developed from such collaborative effort between the two professions.

Many teachers feel ill-equipped to teach students about architecture. And it is not easy for them to grasp the concepts of space, form, function and meaning that are so important for the quality of the built environment.

Architects, in turn, must come to understand the educational objectives of teachers and the constraints of time, funding and administrative procedures within which they work. There may be also social, political or cultural agendas of government, community and parents to be accommodated.

Collaboration will not always be easy, and may require sustained commitment on both sides. But, if it is successful, it can generate curriculum resources of high quality that are welcomed by teachers and transmit to their students a vivid sense of what architecture is all about.

3.2.4 Context

Producing curriculum resource materials can take considerable effort and investment so, before beginning the task, it is important to understand the context in which they will be used. Otherwise the materials may be unsuitable and will not be accepted by the teachers or the schools.

For example, issues that may need to be investigated could include:

- stated objectives of the state/regional/local education system
- administrative and funding structures of the education system
- structure and content of the existing school curriculum
- social/economic/cultural background of teachers and children in the target audience
- existing pressures and demands on the education system
- existing pressures/problems faced by teachers working in the system
- any other interests/agendas in the community that might be relevant.

3.2.5 Partners

At the earliest stage of the project it is worth establishing links with the people who are involved in the delivery of education to children at each age level. These may include individual teachers, school principals, school management boards, national or local education authorities, curriculum development agencies, teachers' associations and parents' representative bodies. Other agencies, such as arts councils, libraries, architectural associations and museums may also play a role in the educational system.

The important things to discover are:

- who has the interest and the skills to collaborate with the architects in developing the curriculum resources?
- who has the power to make decisions/grant approval on what is taught to children?
- who may contribute to funding the development of the curriculum resources or to the costs of using them in the schools?
- who is in a position to promote the use of the resources in the schools when they are completed?

It should then be possible to select partners for collaboration, and decide on a strategy for development and dissemination of the new curriculum resources. This will depend very much on the particular circumstances of the region concerned.

3.3. Designing the curriculum resource package

Having investigated the context, it is time to think about the students and about the approach, content and format of the curriculum materials which will be included in the 'curriculum package' to be produced.

3.3.1 Students

For what age group should the material be designed? What are the students' academic/practical abilities? Their socio-economic background? It is difficult to produce materials that suit students of widely different ages, but there is no problem in designing materials that can be successfully used by students of differing abilities and backgrounds.

3.3.2 Content

Architecture offers a wide range of topics suitable for the classroom. Which ones are chosen for inclusion will depend on the age and ability of the children, the classroom time available and also the architectural issues that most need addressing in the particular community.

Architecture also lends itself to a very wide range of classroom activities, either as part of a dedicated session on architecture or as a vehicle for work in other subject, e.g. mathematics, technology or literature.

Architectural thinking is integrated, visual and non-linear, and work on architecture-based projects contributes to the generic skills, such as communication, problem solving and research, which students use in other areas of their studies.

3.3.3 Structure

The structure of the curriculum materials will depend largely on the advice of teachers and others working in the school system. Decisions will need to be made about: the kinds of exercises included; the time allowed for them; whether they are structured as short intense blocks of learning or a continuing programme spread out over a term or a full school year; the amount of information provided. These decisions will depend partly on the 'teaching strategy' adopted.

3.3.4 Teaching strategy

The curriculum package may be designed for use in 'stand alone' projects, where architecture itself is the primary topic, or designed for integration into the curriculum already taught in the school. If it is designed for integration, first see where the built environment is already addressed in the curriculum and build on that. Then look for opportunities where architectural topics can be used as the vehicle for activities in other subjects, e.g. writing a poem about a building in a class on literature. The architects on the team will be able to see connections between architecture and other school subjects that may not be apparent to the teachers.

There are many debates as to whether activities should be written as *prescriptive* or *generic* exercises.

With the *prescriptive* approach, the activity is clearly defined and the materials (worksheets, for example) are given to the students and completed in a prescribed manner. This requires less preparation and knowledge on the part of the teacher. This can be an effective technique for transmitting basic principles, but is difficult to include activities that demonstrate the design process or engage a high order of thinking. Prescriptive exercises are useful in the first steps of making students aware.

For the *generic* approach, teachers must acquire some understanding of the process of design and building themselves. They can then generate ideas and activities suited to their own students and context. This understanding also allows the teacher to facilitate the students' design or problem solving processes. Clearly, this is a more exciting alternative, but requires more training for the teachers in advance. It also demands a greater time commitment in the classroom.

3.3.5 Approach

It is important to start with the familiar. Students will understand and appreciate the subject matter best when it can be related to their own experiences. For example, they can grasp the concept of plan (top), elevation (side) and section (inside) more easily when given the opportunity to draw a small and familiar object, such as a mug. Study of the entrance to their local town hall can lead to analysis, for example, a Greek portico.

Students are also more motivated by activities that allow them freedom to design or to be involved in 'real' world experiences, such as visiting a building site, looking at design and construction drawings and meeting an architect or an engineer.

3.3.6 Teacher supports

Because most teachers are unfamiliar with the concepts and terminology of architecture, they will need plenty of support if they are to feel sufficiently confident to introduce the subject in the classroom. The point is to make it as easy as possible for the teacher to incorporate architecture into classroom activities. Lesson plans, worksheets, illustrated information sheets, advice on surveying, drawing and model-making and references to useful books, videos and websites can all be helpful.

Most teachers will already have access to some resources. What is available should be established early in the process; there is no point in replicating work already done.

3.3.7 Format

The curriculum package may take the form of book, brochure, separate sheets in a binder, slides, CDs, video or website. Books and printed pamphlets are expensive to produce and distribute. CDs are cheap to produce and to distribute in large numbers, but depend on teachers and students having access to computers, as do resources available on a website. The most suitable medium depends on funding, the scale of the programme and the number of units to be produced, and on the facilities available to teachers and students in the schools.

Teachers or professional curriculum writers sometimes underestimate the importance of visual presentation. Because the subject matter relates to a creative and visual field, good quality presentation is a priority. This does not necessarily mean the use of costly images or processes, but that the illustrations are well-considered, informative and exciting for both teachers and students.

Whatever the format, the curriculum package will be more popular if it is well structured and well indexed, so that teachers can easily find their way round it and adapt its contents to the requirements of the educational system in which they work.

3.3.8 Support from architects in practice

This guideline covers *Curriculum Resources*, rather than the *Architects in Schools* programme. Nevertheless, the occasional contribution of a practising architect can be of great assistance to a teacher who is running an architectural project or programme. For example, an architect might:

- give a talk about architectural practice, what an architect does, architecture, designing buildings, building types, architectural drawings, or any other topic relevant to the teacher's programme

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- present the history of a job done by his/her office
 - act as guide on a site visit to one of their own buildings
 - act as adviser to a teacher running an architectural programme
 - act as critic during a design or study project or as assessor at the end of it
 - allow groups of students to visit his/her office
 - offer work-experience placements.

4. Teacher Training

4.1 Introduction

4.1.1 Environment experience is a permanent process of learning

'Environmental education' begins with the moment of our birth. We get our first spatial and social impressions in the circle of our parents, our family. We learn to see, to hear, to understand and to communicate. Playing, we gather experience about nature and the built environment. We learn to move in this world. Contacts in the neighbourhood, friends, kindergarten and increasingly the modern media, especially TV, enlarge this environmental experience.

The condition of nature and the built environment, as well the quality of social environment, have an early influence on the perception behaviour of children and determine their needs, attitudes, interests and activities.

4.1.2 School provides the most important impulse towards conscious environmental behaviour

School has a special advantage in this process of permanent environmental education. Schools offer general knowledge and the experiences of many generations, concentrated, systematic and arranged according to subjects. School transmits the rules for living in an intact, sustainable environment by demonstrating its qualities, contradictions and conflicts. Appropriate to the age of students, this knowledge will be expanded and further productive and reflective abilities will be developed and exercised. Students thus acquire values, enabling them to judge with increasing independence and to develop their own activities in shaping their environment.

The importance of an extensive environmental education is becoming more and more accepted. In many countries, architecture is already part of the curricula of schools, traditionally integrated for the most part into art education and, recently, also in programmes such as 'Formed Environment' or 'Shaping Space'.

4.1.3 Responsibility of schools

School should enable the systematic development of knowledge and intellectual capability of students so that they (in future) may take their place in society as informed, responsible and capable adults.

School education today should accept the fundamental significance of the built environment for all activities of our life and should therefore provide the students with knowledge about processes, which create or transform this environment.

In order to achieve this, schools should include the themes 'Architecture' and the 'Environment' within their curricula and transfer them into effective and interesting teaching strategies.

4.1.4 Teachers need an understanding of architecture

This educational task requires committed teachers, who are well equipped to engage with the complexity of architecture. They need an understanding of the concepts of space, form, function and meaning that are so important for the quality of the built environment.

Teachers involved in Built Environment Education should have actual (topical) knowledge of current architecture and a critical view on the problems of modern living spaces. Furthermore, they should be able to combine the traditional and proven elements of art education, such as painting

and drawing, sculpture or art history with the new themes of architecture and the environment.

To meet these requirements, architecture should receive more attention during teacher training. Because architecture – defined as ‘the built environment’ – ultimately touches all fields of our life, it is an excellent medium for subject-integrated, interdisciplinary teaching.

Teachers, with effective methods of teaching and learning and appropriately developed curricula, can significantly encourage students towards responsible environmental behaviour.

Therefore, in addition to the guidelines for collaboration between architects and teachers, *Architects in Schools* and *Curriculum Resources*, the International Union of Architects (UIA) has developed this *Teacher Training* guideline as a proposal for training and further education of teachers in the field of Built Environment Education.

4.2 Objective

This guideline is intended to help architects collaborate effectively with teachers and teacher-training institutions by introducing concepts of Built Environment Education into the initial training and continuing education of primary and secondary school teachers.

4.3 Modern teacher training and further education in architecture and the environment

This guideline is not aimed at a basic or part-time study of architecture for teachers. Student teachers should not be trained as architects, but, within their own specific studies, receive suitable information about the built environment. Thus they will develop an interest in and understanding of the issues involved in architecture today. They should be aware of its qualities and problems and with this understanding they will be able to transmit to

their students essential facts about the built environment in a descriptive and interesting way.

Teacher training courses about architecture should contain the following focal points:

- a basic conceptual framework of architecture
- an overview of the important components and working fields of architecture
- an approach to specific problems of current architecture.

4.3.1 Conceptual framework of architecture

As well as the definition of architecture as the ‘built environment of man’, a simple basic conceptual framework of architecture is initially useful. Because architecture is a very complex phenomenon, this model is suitable for explaining important relations, such as *architecture and function, man and construction, building and the environment* understandably and memorably.

4.3.2 Overview of important components and working fields of architecture

This section gives an introduction into some of the main aspects of the built environment. First of all, it concerns architecture generally. Nevertheless, one should note various regional and local characteristics caused by landscape, climate, history, culture, society, etc.

Architecture and the environment

relations between the natural landscape and the built environment; meaning of town and countryside

Architecture and history

continuity and change in the structure and form of houses and settlements; historic buildings as evidence of their period; developing typologies

Architecture and society

construction and the culture of construction; the influence of the economy, technology and social conditions on architecture

Architecture and function

functional requirements of activities housed in a building; use and experience of architecture; meaning of plane and space, 'place' and 'way'

Architecture and housing

housing as a basic need; various forms of housing; social-spatial qualities; changing ways of life

Architecture and structure

construction as a precondition of architecture; general principles of structure; traditional and modern building structures;

Architecture and aesthetics

the ideal function of architecture; information and aesthetics; perception and shape of buildings; forms and meanings

Architecture and the design process
objective (task) of architectural design; purpose of plans, drawings and models

Additional information can be given about the specific working fields of architecture: town planning, structural design, interior design and landscape architecture.

Short reference to the collaboration of architects with many other special fields, for example, technical engineering/structural engineering, statics/dimensioning, building materials processing, heating, ventilation and sanitary installation, electric and electronic equipment, solar installation, etc, would communicate the complexity of construction and building production.

4.3.3 Approach to specific problems of current architecture

This section addresses contemporary architectural issues and problems, that effect what gets built today and which are the focus of much current architectural and public debate. It covers problems common to many countries in our contemporary world. But, here it would be particularly important to focus on issues that are relevant, timely and appropriate for the specific region or locality.

Architecture and urban design

importance of urban design; organisation of urban space; preservation of landscape space; settlement as designed form

Preservation and modernity

value of architectural heritage; relationship to new use and to modern architecture; (criteria for an) objective evaluation of old and new architectural forms

Culture of construction/design quality

industrialised production and 'genius loci'; individual design and prefabricated houses; qualities of good architecture

Modern form and material

meanings of the materials: steel, glass, concrete, wood, stone, brick; traditional or modern processes; new characteristics of materials

Economy and ecology

building costs and sustainability; use of renewable natural resources; structural maintenance (value of the existing building stock)

Social factors/needs

adequate shelter for all; individual and social needs; public, community and privacy

Participation/involvement

self-build housing (as economic necessity or self-realisation); involvement in personal and public environment

4.3.4 Professional language, everyday language and communication

Explaining architectural topics during the teacher training process may involve an additional task. When architects talk among themselves they use a specialised vocabulary that is not easily understood by non-architects. In collaborating with teachers, architects must strive to communicate in a clear and generally understandable way. The teachers themselves will need this 'everyday' vocabulary to communicate architectural concepts to their students. This is where discussion between architects and teachers should start.

4.4 Architectural content in teacher training

4.4.1 Teacher training structures

The structure of teacher training programmes varies between different countries and regions. Mostly the state or regional government holds the responsibility; however, sometimes it is given to private supported colleges. Primary and secondary teachers may gain qualifications from a variety of institutions, which can be academies, universities or dedicated teacher-training colleges. The initial training and the continuing education of teachers is not necessarily provided by the same institution.

In any initiative to influence teacher training, the first step is for the architects to discover:

- how teacher training is organised in their country/region
- the structure and content of the teacher training programmes at each level
- which people or agencies have the power to make changes in these programmes.

4.4.2 Teacher training programmes

Many programmes already have some architectural or environmental content, to meet the educational agenda of the primary and secondary school curriculum.

In most countries the artistic, cultural and aesthetic education of students is covered in subjects such as 'Art' or 'Shaping Environment'. Consequently, in teacher training programmes, particularly in 'Art Education', the Fine Arts, artistic training, Art History and the History of Architectural Styles tend to precedence. Other subjects, which may cover architectural or related topics, such as Technology, Crafts, Civic Education and Environmental Education, tend on the other hand to emphasise more technical and scientific issues.

In the interest of a broader approach to the aesthetic quality of art, technique and the built environment in teacher training programmes both of these one-sided tendencies should be avoided. Including the suggested topics in teacher training programmes will, therefore, result in a more complex understanding of the built environment.

4.4.3 Strategic interventions

Most teacher training programmes already have very full curricula and the opportunities for inserting new themes in the programmes may be limited by time, quantity and resources.

Therefore the intended thematic interventions in architecture should be quite short, intense and focused. Real learning is an emotional, not just an intellectual, experience. This is as true for teachers as for their students. Something that engages the emotions and imagination of teachers will be most effective, because then they will want to convey the excitement of their own experience to their students. What is really important is that whatever is done, is done very well. Then it will be remembered.

Good examples, descriptive materials and even practical, achievable and imaginative exercises are useful to support this intention.

Periodic revision of primary or secondary school curricula may present a good opportunity for extended influence on new teacher training programmes too. In this way, architectural/environmental issues, may be fully integrated into the training of young teachers or the continuing education of experienced teachers who will be teaching the new curriculum.

In planning interventions, the experience of the teacher-trainers should be considered. Methods already used in training teachers in other subjects, such as Science, Art, Geography or Music, may be effectively adapted for architectural topics.

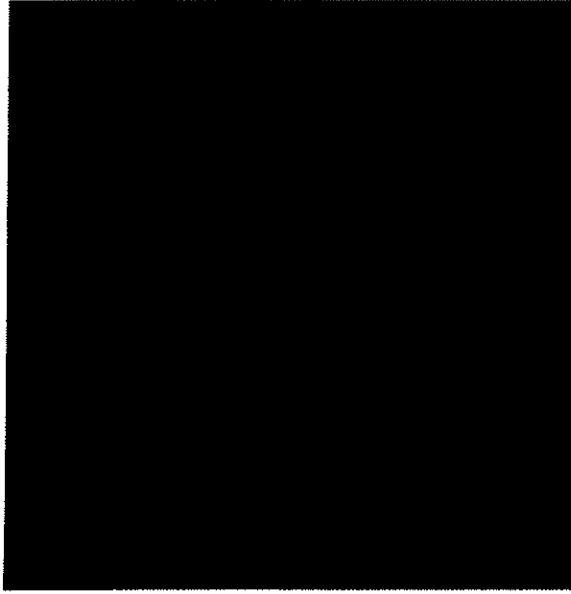
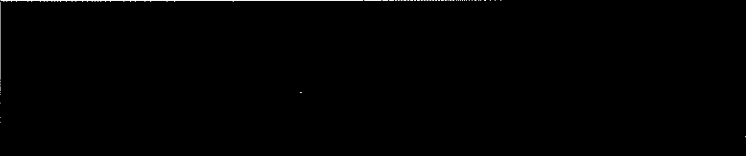
Interdisciplinary projects or continuing education courses in 'Architecture and the Environment', involving teachers who teach different subjects, are often valuable. In this way, teachers, and their students, learn about the built environment from various points of view, so gaining a richer appreciation of architecture. This may also support new methods of subject-integrated and subject-connected teaching.

4.5 Collaboration

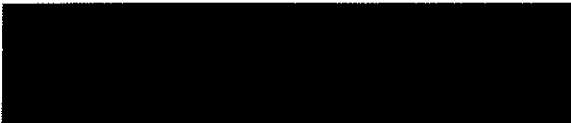
The successful addition of architectural topics to teacher training is best achieved by professional collaboration between teachers and architects as suggested in the *Architects in Schools* and *Curriculum Resources* guidelines. This may involve discussion and agreements with many partners: state or local governments and ministries, universities, academies, organisations responsible for teacher training, and teachers' associations.

Other contacts can be useful, particularly with schools that have successfully run such projects or are just starting to test new methods of Built Environment Education. Contact with sources in other countries offers further possibilities of using a wider spectrum of experience as a basis for developing effective programmes of teacher training.

Regardless of continuing assistance by architects and their associations, the ultimate objective is the adoption by teachers and schools of the principles of Built Environment Education.



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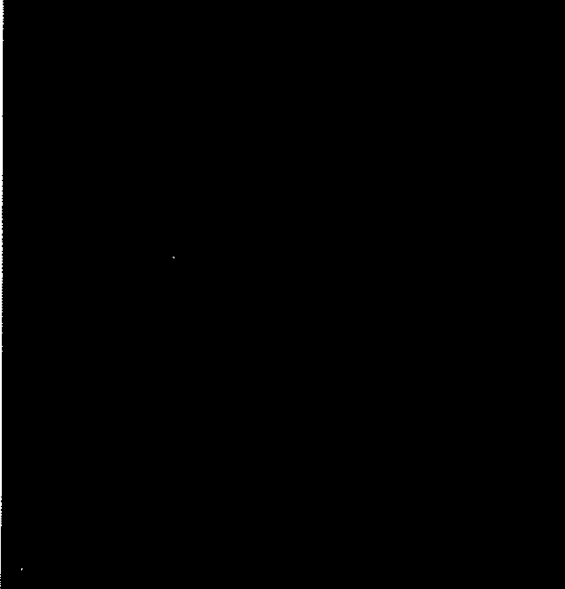


Uia International Work Programme "Architecture and Children (Built Environment Education)" 2002:

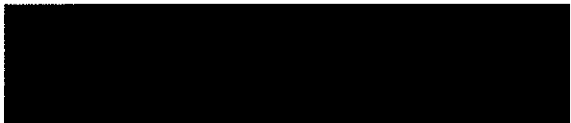
Michael Peck, Australia (Director); Tiina Valpola, Finland;
Hannes Hubrich, Germany; Ann McNicholl, Ireland;
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Rod Hackney, United Kingdom;

Work Programme Secretariat:

Michael Peck, The Royal Australian Institute of Architects,
PO Box 3373, Manuka, ACT, 2603, AUSTRALIA;
telephone: 61-2-6273 1548; fax: 61-2-6273 1953;
email: michaelp@raia.com.au



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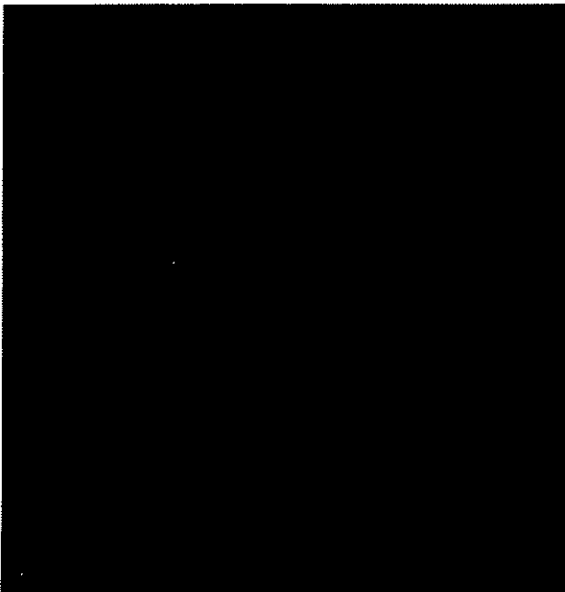
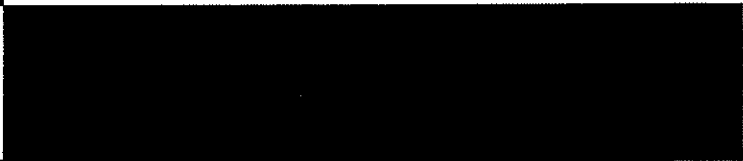


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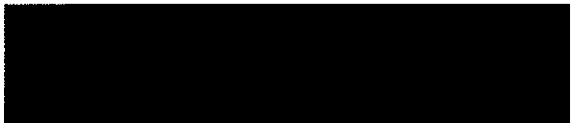
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