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**NATIONAL COLLEGE OF ART AND DESIGN**

**FACULTY OF DESIGN**

**DEPARTMENT OF INDUSTRIAL DESIGN**

**AN EVALUATION OF IRISH PUBLIC AUTHORITY  
PLAYGROUNDS WITH PARTICULAR REFERENCE  
TO FACILITIES IN DUBLIN AND LIMERICK**

by  
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## INTRODUCTION

*The purpose of this thesis is to examine the present state of Public Authority playgrounds in Ireland with particular reference to facilities in Dublin and Limerick. The aims of this study are to firstly determine how successful are Public Authority playgrounds in satisfying the play needs of children. Secondly in examining the results of alternative approaches to the provision of playgrounds in other countries, I intend to forward proposals for the future development of Public Authority playgrounds in Ireland.*

**The thesis outline is as follows:**

Chapter One analyses the subject of play and defines the necessary types of play which a playground should be capable of stimulating for the healthy development of child.

Chapter Two examines the present state of playgrounds. Comparisons and contrasts are drawn between the policies of Public Authorities in Dublin and Limerick. The facilities are assessed with regard to the following:- quality of equipment, maintenance standards employed, levels of supervision in place and the level of financial commitment. The investigation was carried out by means of interview with Public Authority Officials, playground designers and playground equipment designers, parents and a researcher of playgrounds. A questionnaire (Appendix I) was sent to 16 Public Authority Bodies of which there was a 25% response rate and site visits were carried out on the following playgrounds:

### **Dublin County Council**

Marley Park, Rathfarnham and Malahide Park, Malahide

### **Dublin Corporation**

St. Annes Park, Fairview, Belgrave Square, Ranelagh, Merrion Square, Palmerstown and Ballymun.







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Office of Public Works

St. Stephen's Green and Phoenix Park

Limerick Corporation

O'Brien's Park, and Drumgeely Playground, Shannon

Chapter Three investigates the issues which influence investment and interest in Public Authority playgrounds which are the following: vandalism, litigation, safety in the playground, access to the playground and the rising popularity of private playgrounds.

Chapter Four analyses the different approaches taken in Denmark and Japan in providing playground facilities for children. I propose to examine the feasibility of Irish Public Authorities adopting similar approaches.

*Using conclusions drawn from research on the needs of children, the state of Public Authority playgrounds, factors influencing the present situation and the effectiveness of alternative playground environments, I aim to put forward a proposal on the future development of Irish Public Authority playgrounds.*







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## 1.0 Chapter 1 - AN ANALYSIS OF PLAY AND THE ROLE OF A PLAYGROUND

### 1.1 Introduction

*Before an evaluation of playground facilities can be undertaken it is necessary to understand the purpose of play in a child's development. I propose to achieve this by defining play and its role together with an investigation of the different types of play. Accepting its significance in a child's development implies a necessity to provide an environment where play can be effectively facilitated and stimulated. For this reason I intend to examine how this can be successfully achieved within a playground so that an honest evaluation of Public Authority playgrounds can be obtained.*

### 1.2 Children in History

Up until the nineteenth century there was little or no regard for the needs of children. Children and childhood were seen as states to be endured. Children were part of the work-force. In England during the Industrial Revolution children as young as four years had to work on the farms and down in the mines. In 1876, a law was introduced which stated that all children under the age of ten years had to attend school. Samuel Wilderspoon (1792-1866), a co-founder of the Glasgow Infant School Society was one of the first people to realize the importance of play within an educational environment (Heseltine & Holborn, 1987, p. 23). He saw the playground as an outdoor classroom. The late nineteenth century saw the middle classes striving to preserve the "delightful innocence" of their children. (Sylva & Lunt, 1986, p 56)

In the twentieth century both individuals and society as a whole became interested in serving the needs of children. In our fast changing world children are very







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vulnerable creatures. A number of organisations have been set up to protect and defend the rights of the child for example UNICEF, Barnardos, and the ISPCC.

### *1.3 What is Play?*

The following definition is influenced by the Japanese understanding of play 'asobi'. Play is an activity which involves departing from the ordinary, everyday activities and to continue to learn, imagine, create and interact successfully while moving forward with our lives (Senda, 1992, p. 1)

### *1.4 Types of Play*

There are three fundamental types of play necessary for healthy development. These are:

- i. Physical Play
- ii. Social Play
- iii. Cognitive Play (Friedberg, 1976, p. 5)

These types of play remain essential even when the children mature, and their activities diversify. A good playground should be able to facilitate and encourage all these types of play.

Physical Play: involves the development of motor co-ordination through challenging and testing the child's physical capabilities. The child learns about his/her strengths and limitations. It is important that the play is not over challenging. If it is too difficult the child will become frustrated. On the other hand, adults are frequently accused of being too cautious and safety conscious in designing for playgrounds and this can result in designs which are dull and lack adventure.

Social Play: involves children interacting and learning to co-operate with one another. Children share experiences and knowledge and learn how to work together







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successfully to attain a goal. A form of social play is role play. Role play offers the child the opportunity to extend both themselves and their environment beyond the limits of reality. This play stimulates both the imaginative and creative abilities in the child (Goldstein, 1993, p. 3). Social play is particularly encouraged in adventure playgrounds, where the equipment has more than one function.

Cognitive Play: involves solving problems through the medium of play. This type of play also stimulates the creative and imaginative abilities of the child. Cognitive play offers

*'a child opportunities to make decisions and test out their consequences in a controlled situation',. (Friedberg, 1976, p. 7).*

When designing for playgrounds it is essential to offer a number of activities which vary in degrees of difficulty and ability. It is important to remember that one is designing for children of different ages and different capabilities.

### **1.5 Theories on Play**

The nature and purpose of play has long been an issue of discussion among psychologists and philosophers. Both Plato and Aristotle believed that play was essential for the healthy development of a child and that it also provided the opportunity for children to practice adult roles. Herbert Spenser, a nineteenth century English philosopher, proposed that play was a means of releasing excess energy (Surplus Energy Theory). This theory however, is not fully conclusive as the sporadic nature of childrens energy levels does not concur with the apparent structured and purposeful nature of play (Bruce, 1991, p. 30). Karl Groos, a Swiss philosopher believed that play was a learning process. Through play the child is able to learn and practice adult survival skills at a more reduced and relaxed pace. Groos was influenced by Charles Darwin's principle of Natural Selection and argued that as a result of play, children were more adaptable to both their environment and the people around them (Bruner, Jolly & Slyva, 1976, p. 26).







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Modern day arguments show Freud proposing that play results in the reduction of stress. During play the child re-inacts stressful, disturbing and confusing events in order to gain a better understanding of them. The reversed role of control on the child's behalf is very influential. Erikson, extending Freud's theory, believed that play was a process which intensified with the child's growth allowing for increased physical and social development (Bruce, 1991, p. 32).

Jean Piaget, the most controversial and influential play psychologist believed that play formed an integral part of the child's cognitive development. Cognition is the experience involved in acquiring knowledge. The ability to play provided the child with the opportunity of learning about the interaction between self and the environment. It also increased physical and sensory co-ordination. Piaget defined four different development stages of the child. He did this by observing the activities of children in relation to their respective ages. Piaget believed that the child's intellect developed as a result of a process of "assimilation" and "accommodating information". He called this system of processing information, 'play' (Sylva & Lunt, 1986, p. 91-100).

### ***1.6 The Role of Play***

'Play, along with the basic needs of nutrition, health, shelter and education is vital for the development of the potential of all children'.

#### **The Malta Declaration on the Child's right to play, 1977**

(Kompan, 1994. p. 3)

Play provides the opportunity to interact successfully, to gain confidence and to become more creative. Play is 'the primary vehicle for the development of relationships with peers' (Mussen. 1990, p. 426). Play also facilitates the intellectual development of the child. Through play children acquire social and cultural skills of both their own country and others. Children who are able to play well are less aggressive and more capable of occupying themselves in boring







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situations (Goldstein, 1993, p. 6). Without play children suffer from lack of imagination and are unable to amuse themselves. They have difficulty in interacting with other children. In company they tend to be aggressive and rowdy. (Bruce, 1991, p. 32)

### ***1.7 Providing adequate play space for children in a city environment.***

There is no Irish legislation stating the necessary amount of play space for children in a built up or industrial area. Irish cities have one of the highest percentages of open space areas in comparison with other European Cities (Harris & Verenger, 1988, p. 9). Empty green belt areas though are not enough. They need a minimum amount of facilities for public use so as to encourage the use of the green belt area.

At present the most common playing place for children in cities is either on the streets or at derelict sites near their homes. Irish streets, unlike a number of European streets do not have adequate provisions made for play, such as pedestrian streets, ramps on the roads, etc. Therefore, the highest proportion of accidents involving children occur on the streets near the children's home. It has been argued that as children are geniuses at play, they can make any place a playground (Senda, 1992, p. 2). Consequently there has been little or no effort to provide adequate playground facilities for children in built up areas. It should not be entirely up to the child to create its own play environment. The playground should be capable of stimulating the child. A playground is:

*'an outdoor learning environment designed to support and suggest activities that are an essential part of the child's learning and development (social, emotional, cognitive and physical)' Anne Erikson, 1965 (Hesseltine & Holborn, 1987, p. 38).*

A playground should encourage circulation of play. It should provide alternatives for the children so that they can take short cuts and by-passes during play. It should stimulate a number of different types of play. The playground should be designed







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so that it encourages large and small gatherings and rest points. The playground equipment, as a rule, should be "a catalyst for generating play" (Senda, 1992, p. 8). Both the equipment and the grounds, while providing both exciting and adventurous play, should be safe. The same applies to the access points to and from play areas. Ideally the entrances should be connected to pathways and cycle paths.

### **1.8 Conclusion**

*The ability to play is an integral part of both the intellectual and social development of a child. Research has shown that for this to be successful, children must partake in physical, social and cognitive play. This can be best achieved through providing a safe and stimulating playground.*







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## 2.0 Chapter 2 - AN ASSESSMENT OF PUBLIC AUTHORITY PLAYGROUNDS WITH PARTICULAR REFERENCE TO DUBLIN AND LIMERICK

### 2.1 Introduction

*The purpose of this chapter is to examine the present state of Public Authority Playgrounds in Ireland with particular reference to facilities in Dublin and Limerick. Research has shown that a playground must be safe to use and should be capable of stimulating the child in physical, social and cognitive play. In assessing if Public Authority playgrounds fulfil these requirements, I propose to examine them with regard to the following: quality of equipment used; maintenance standards employed and levels of supervision engaged. These factors are directly influenced by the financial policies of the Authorities, which I also intend to examine. The information for this assessment has been obtained through visits to the playgrounds, submission of questionnaire (Appendix I) to the Public Authorities and interviews with both Public Authority Officials, Playground Designers and Playground Equipment Designers and users (Parents/Carers and Children).*

### 2.2 Equipment

In 1988, the Gay Byrne Show reviewed the state of Public Authority playgrounds in Ireland. They surveyed playgrounds in the cities of Dublin, Cork, Limerick and Galway. A number of issues such as bad location, lack of maintenance and lack of supervision came under criticism. However, it was the poor quality equipment which received the most criticism, some of which was described as highly dangerous and unfit for use. Rusted slide beds, worn swing chains and broken concrete play tunnels were just some of the examples cited. In some playgrounds equipment which had been banned in Britain and other European countries since the early eighties was still in use. Accidents resulting from such items as the plank







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swing and rocking horse were widely recorded, however, the Irish Authorities chose to ignore these warning signals. Summing up the review of equipment a Technical Adviser from the National Playing Fields Authority<sup>1</sup>. Mr. Jon Verenger recommended that the majority of it be removed and replaced by new play equipment (Harris & Verenger, 1988, p. 6). Of the four cities reviewed only one playground was commended. This was Marlay Park in Rathfarnham which was part of Dublin County Council Renewal Programme. However, even in this model playground some of the equipment did not comply with British Standards. The conclusion reached by those reviewing the state of the playgrounds was that

*"There is a desperate need in Ireland not only for safe childrens places, but also for some kind of standard" (Harris & Verenger, 1988, p. 13)*

Since then, there has in general been a considerable improvement in the standard of city playgrounds. This came about as a result of the review in 1988 and from the example of Dublin County Council and the Office of Public Works.

In 1985 Dublin County Council decided to change its policy on playgrounds. At the time they were responsible for approximately fifty playgrounds and playlots throughout the city. These were for the most part poorly equipped, in disrepair and a large proportion were no longer in use. Vandalism and population swings were among the reasons why this was so. However, it was the Councils inability to provide proper maintenance and supervision that resulted in these play areas becoming liability risks. For these reasons Dublin County Council decided to phase out all these play areas and to begin a Restructuring Programme (Devoy, December 1993 - Interview). The old play areas were gradually closed down by removing damaged equipment until there was no equipment left, hence no playground. This policy of phasing out and restructuring on a smaller scale has since been followed by the Corporations in Dublin, Limerick, Cork and Galway.







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In restructuring, Dublin County Council concentrated on building large, well equipped adventure playgrounds. There are presently seven such playgrounds (Figure 1), with another one in the pipeline for Tolka Park. They all form part of large recreational parks. To-date they have all been designed and built by the Council staff (Devoy, December 1993 - Interview). This is an enterprising change, as before all the equipment was imported from Britain and Holland. When designing the equipment they consulted the Scottish Forestry Commission's manual on *Providing for Children's Play in the Countryside*. This manual gives simple guidelines on making adventure equipment using basic materials such as wood, ropes and tyres. The construction requires little machining and expertise and it is also very economical.

A sample range of the designs are as shown (Figures 2 & 3) ramps, slidets and suspension bridges, etc. While all the equipment simulates "gross motor activity" - physical play (Bruce, 1991, p. 46) certain features such as the shelters and huts which form the foundation of the ground have become little meeting areas and relaxation points for the children (Devoy, December 193 - Interview). A playground should not only offer children alternative ways of movement but should also provide cosy places to talk and to play "lets pretend" (Kompan, 1994, p. 7).

Unlike previously used equipment all the materials presently employed are very tactile. In playgrounds children grab, hold, rub and hug the equipment both for physical and emotional support. When a child touches a textured material there is a spontaneous reaction within his/her body. After a period of time playing this reaction can become a form of reassurance in attempting greater feats within the play area (O'Neill, December 1993 - Interview). Children are more adaptable and find it easier to process information through play. (Sylva & Lunt, 1986, p. 164). Hence it is an excellent medium by means of educating children on the different properties of materials.







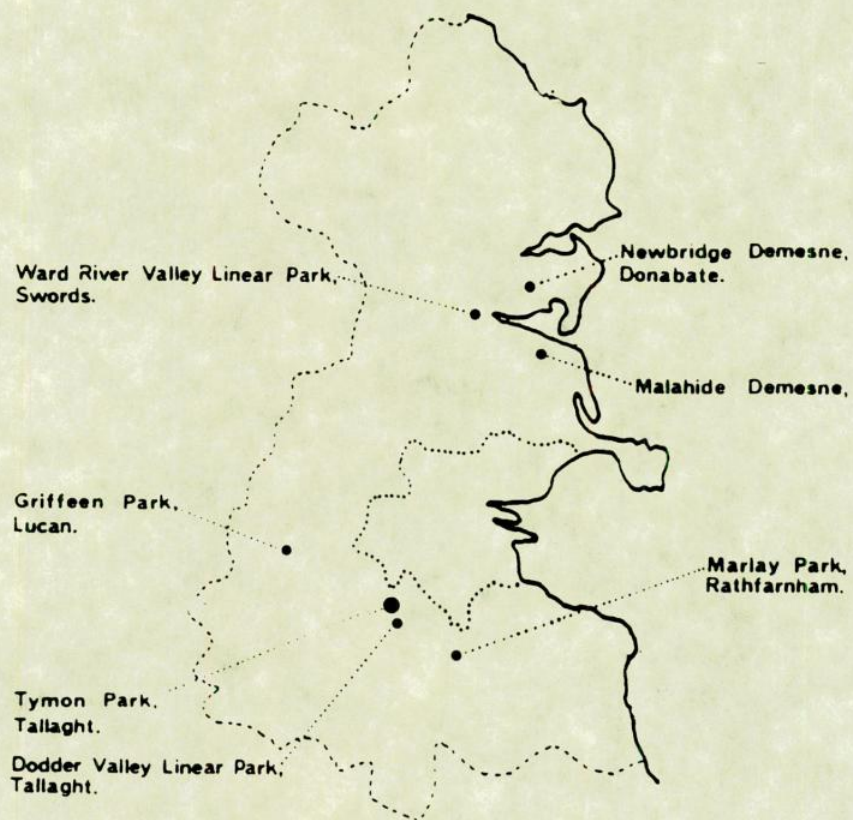


Figure 1 Location map of Dublin County Council Playgrounds









Figure 2 Irish made adventure playground equipment in Malahide Park



Figure 3 Irish made adventure playground equipment in Malahide Park







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*"What is a flower without shape and colour?" (Kompan, 1994, p. 7)*

Children's play materials and environments have very rich concentrations of colour. Because children's perceptions are not as developed as adults it is important to carry certain elements of association with the activity into the proposed play environment. An obvious means of doing this is through colour, as a child may not have the opportunity of encountering the equipment or materials used within a home/school environment. In this respect, the Council has been criticised as its playgrounds do not provide adequate visual stimulation for the child (Figure 4) (Bagnall, December 1993 - Interview). There are no bright colours in the playground as all the materials have been left in their natural state. The playground is absorbed into the landscape and while it avoids visual pollution, it is very bland. The Council did this because it requires less maintenance and they also felt that is fitted in better with the overall environment. (Devoy, December 1993 - Interview) This is an example though, of children's need for sensory stimulation being compromised by adults' perceptions of taste and convenience. Playground equipment should exist in harmony with the surroundings, not disappear into it.

Choosing the right materials for use in play equipment is very important. It must be sensitive to the needs of the child, society and nature. For this reason the Council has used wood as the basic material. It is both environmentally friendly and a renewable resource, and as it is Irish grown it also helps to boost the economy. This policy has been further developed by Dublin Corporation, who have in recent years built a number of adventure playgrounds. For safety surfacing the play area they used wood chippings (Figure 5) rather than loose fill gravel (Figure 6) which is used by the Council. Although it requires regular raking and partial replacement annually, it is safer and less expensive than gravel. (McKnight, December 1993 - Interview)









Figure 4 Lack of visual stimulation in Marlay Park Rathfarnham









Figure 5 Wood chippings -- Corporation Safety Surfacing



Figure 6 Loose fill gravel -- County Council Safety Surfacing







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Both the Corporation and the Council must be credited for their efforts in trying to create a playground equipment industry in Ireland. At present, there is only one commercial manufacturer in Ireland, Cavanaghs of Tipperary who have over the years, supplied a small number of Authorities with equipment. The large proportion of their business is within the private sector. Although there is a large demand for playground equipment in Ireland, the majority of it is imported from Britain and Holland. The main deterrent for potential manufacturers is the cost involved both in manufacturing and processing and in insurance.

If a playground accident is caused by faulty or below standard equipment then the manufacturer, not the Authority, is liable. Because playground incidents have become so litigious, insurance costs for the manufacturer have risen dramatically. For this reason the purchased play equipment is very expensive. (Hoctor, December 1993 - Interview) However, a number of Authorities persist in buying such equipment. The cost of building a Council adventure playground is £7,000 exclusive of labour (Devoy, December 1993 - Interview). This compares favourable to £25,000 (labour inclusive), the cost of building O'Brien's playground, in Limerick City (Murphy, December 1993 - Interview). All the equipment in the Council playground (Figure 7) is Irish made, whereas the equipment in O'Brien's Park (Figure 8) is imported from Britain and Holland.

Lack of finance is, the Authorities claim, the most influential factor in not being able to provide adequate playground facilities for children. For the Authorities some of the financial burden would be alleviated if they were to adopt the creative policies of Dublin County Council and Dublin Corporation.

### *Provision for Young Children*

One area where there has been little improvement since the review of 1988, is in the provision of adequate toddler facilities. The majority of accidents in Irish









Figure 7 Dublin County Council Playground -- Malahide



Figure 8 Limerick Corporation Playground - O'Briens Park







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playgrounds involving young children are caused by playing on non-age related equipment. Although it is recognised by Authorities that children as young as 2 years use the playground facilities, there is rarely if ever, adequate provision made for them. An example of this is in O'Brien's Park, Limerick City's only playground. The only equipment specifically for the use of young toddlers is four spring riders. These are animal like spring based products (Figure 8A) which the child sits on and rocks back and forth. They help to improve balance and to give the user a realistic experience of action-reaction possibilities. The under fives are too young to use the modular unit (Figure 9) and the swing bay (Figure 10) has to be shared with the older children. When the young child tires of using the spring riders, it is the parent/carers responsibility to entertain them. The purpose of a playground is to offer children, of all ages, the opportunity to play independently of parents/carers within a safe and stimulating environment (Bagnall, December 1993 - Interview). Although it can be enjoyable for parents/carers to play with the children in such an environment, it should not be necessary for them to have to entertain the child for the most part of the visit.

When there is not enough equipment for the young child, he/she will quite often attempt to use items which are beyond his/her capabilities. This often results in the child injuring him/herself or endangering other children due to inability or through misuse of the equipment. Sometimes parents/carers decide to accompany these young children onto the modular unit. It should be noted that these systems are not designed for use by parents. Therefore not only is the parent/carer putting unnecessary strain on the equipment, but together with the young child they slow down and disrupt other childrens play. An incident which frequently occurs in such circumstances is that the parent/carer will push the young child down the slide. Slides on modular systems are not designed for young toddlers. When the toddler is in motion, the parent/carer jumps off the system and runs to meet the young child before he/she reaches the bottom. This is highly dangerous, not only for the adult









Figure 8A Example of Spring Rider









Figure 9 Example of modular unit

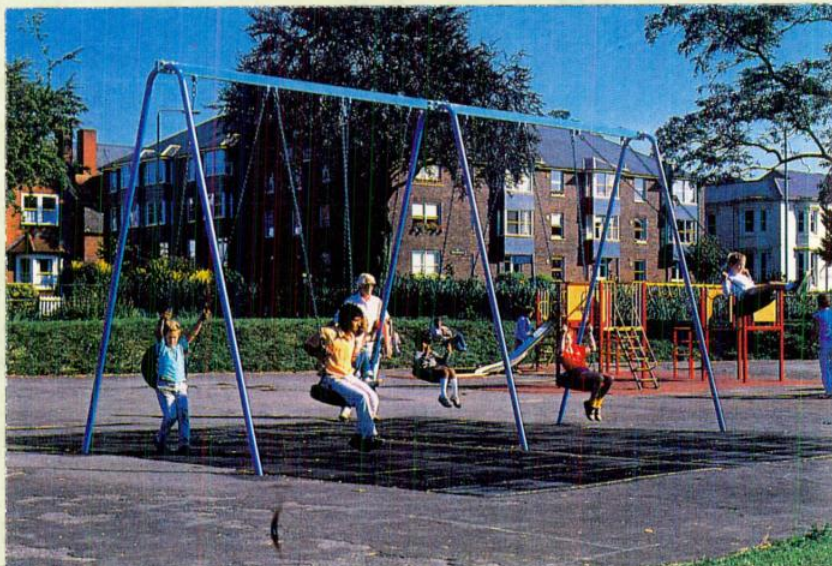


Figure 10 Example of swing bay







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and unprotected child, but equally so for other children playing nearby who may be pushed or knocked over by the rushing adult. As well as being outright careless the parent/carer displays lack of responsibility and sets bad example for other children. However, unless Authorities begin to provide more stimulation for the under-fives incidences such as these will continue to happen.

### *Playground Layout*

In designing the layout of adventure playgrounds, the Council and Corporation formed a creative linking system between the different items of play equipment. The child is thereby encouraged to move through and fully explore all aspects of the playground area. Other Authorities, for example Limerick Corporation and the Office of Public Works adopted a different approach using modular systems. They chose to focus the attention of the child onto one closely knit unit (Figure 11). These systems involve high activity play and are typically characterised by towers which are linked together by a wide range of varied and unique play components. The children are encouraged to explore different ways of swinging, jumping and climbing. The systems vary in size and style from the large super deluxe to the smaller standard model. All designs can facilitate a number of children at any one time. The interaction among the children while playing helps to develop and improve on communication skills as they learn to share activities, ideas and experience (Hector, December 1993 - Interview).

Modular Systems, unlike adventure playgrounds, are more adaptable to small areas. If the size of the playing area is increased at a later date, the size of the modular system can easily be modified to suit by using add-on components. Modular systems also encourage more intimate interaction among the children. One of the main disadvantages of the modular system is that because they are the focus point of the playground, during the Summer months they can get uncomfortably overcrowded. The largely spread-out linking systems employed in the design of









Figure 11 High Activity Modular Unit







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adventure playgrounds avoids this problem. Adventure playgrounds, although lacking in visual stimulation, are cheaper to build and maintain. However, if the Authority can show some initiative, and is sensitive to the needs of children the absence of colour can be easily remedied, thereby providing the child with adequate visual stimulation. Both systems stimulate the elements necessary for health development, i.e. participation in physical, social and cognitive play. Depending on the size of the proposed play area and the Authority's budget one system will obviously be more suitable than the other. However, in the interest of developing a greater cultural awareness in the child and in helping to boost the economy Irish designed and built playgrounds i.e. adventure playgrounds are more beneficial.

### **2.3    *Maintenance of the Playground***

In all Authorities the Parks Department are responsible for the maintenance of the playgrounds. Depending on the location of the playground this job is carried out by either a park ranger or gardener. Their duty is to ensure that at all times the equipment and grounds are in good working condition. They must report any unsafe or vandalised equipment and secure its repair (Murphy, December 1993 - Interview). In the majority of playgrounds, the visual inspections are carried out daily, one in the morning and one in the evening. Each week a written report is submitted to the parks department stating the condition of the playground and any action taken relating to repair or removal of unsafe equipment. These reports are kept on record so in the event of a liability action being taken, the Authority has an official account of the state of the playground at the time of the accident (McKnight, December 1993 - Interview). Having this information in the past has cleared Authorities of responsibility and in other cases reduced the amount of costs awarded. An example of this is the case of Derek Daly V Limerick Corporation. The claim arose from a fall through a vandalised play piece. The costs awarded were reduced to £13,412.62, as the corporation had evidence that the equipment had







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been checked on the day previous to the incident (Murphy, December, 1993 - Interview).

Insurance companies are now insisting that all Authorities keep these reports on record (Monaghan, December 1993 - Interview). The use of guideline forms when carrying out these inspections is also recommended. These forms highlight critical areas to be checked in the equipment such as stress points, joints, bolts etc. They can be obtained from the manufacturer and are essential when inexperienced people are inspecting the equipment.

External inspections take place at the beginning and end of the summer season. This is not adequate however, as during the summer season the equipment is continually in use. The equipment has to be closely safeguarded during this time, as there is a higher risk of equipment failure due to increased stresses and strains (O'Neill, December 1993 - Interview). As the Park Rangers and gardeners are not technically qualified to detect these potential failures, external inspectors should be employed more frequently.

Authorities tend to be very lax in maintaining standards during winter time as the playground is rarely used. The materials are not adequately protected against the weather conditions. An example of this is shown in the photographs taken in December 1993 at O'Brien's Playground, Limerick. (Figures 12 & 13) The swing chains and the fireman's pole were covered in rust. If a child with an open cut comes in contact with one of these rusty surfaces, it will become infected and will require medical attention. Due to lack of maintenance, the Authority is automatically open to liable. Rather than properly treating rusty surfaces, Authorities frequently tend to paint over the area. This is not an adequate solution as the item will continue to corrode, and the condition will deteriorate even further. Depending on where the rust is this could lead to a complete failure of the play







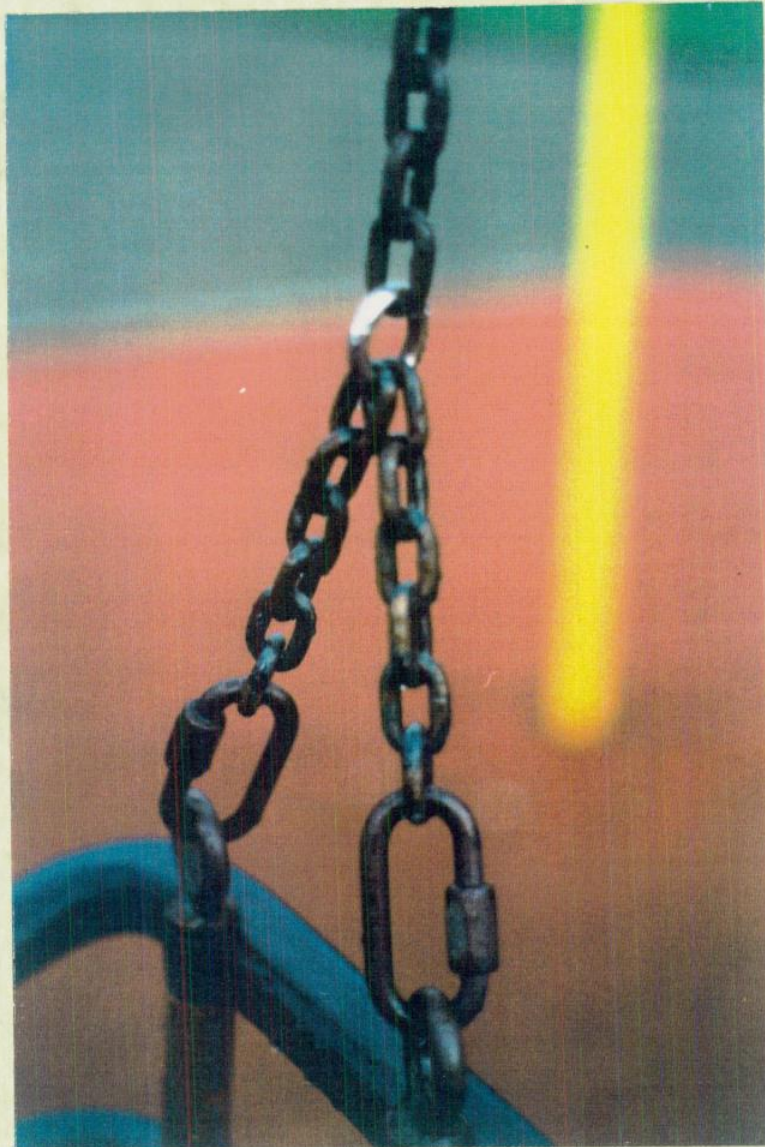


Figure 12 Rusted Swing Chain - O'Brien's Park



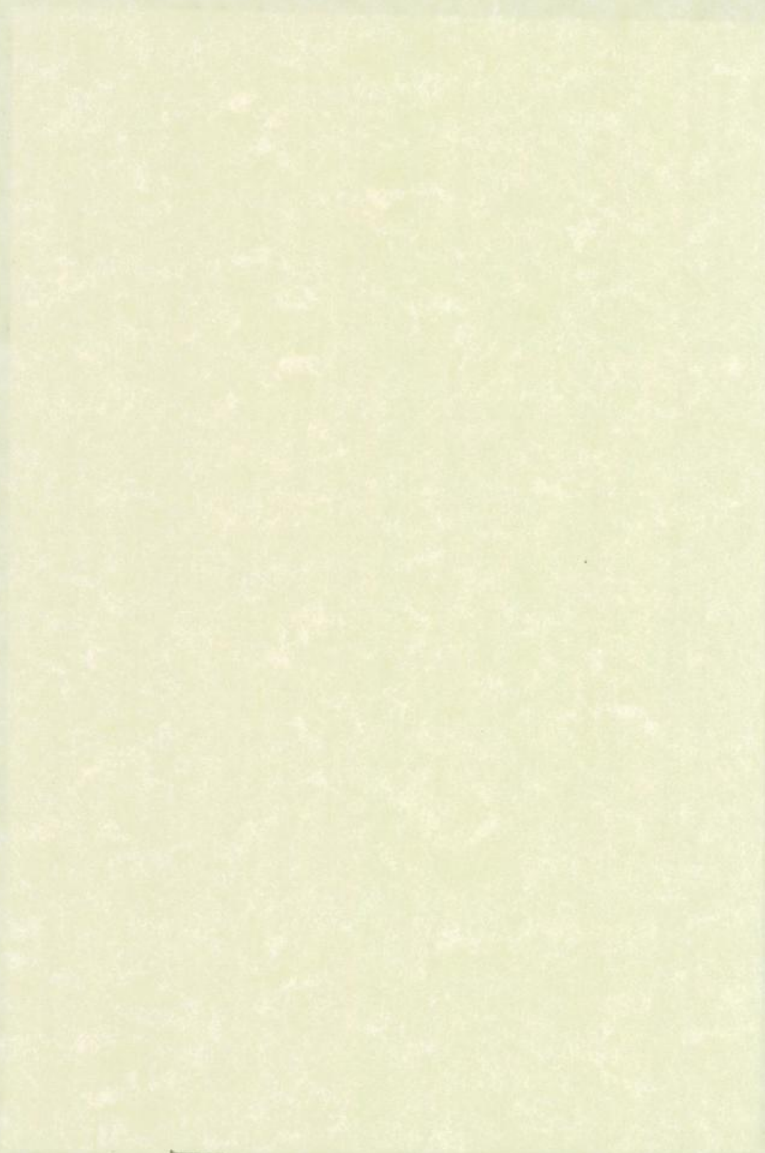
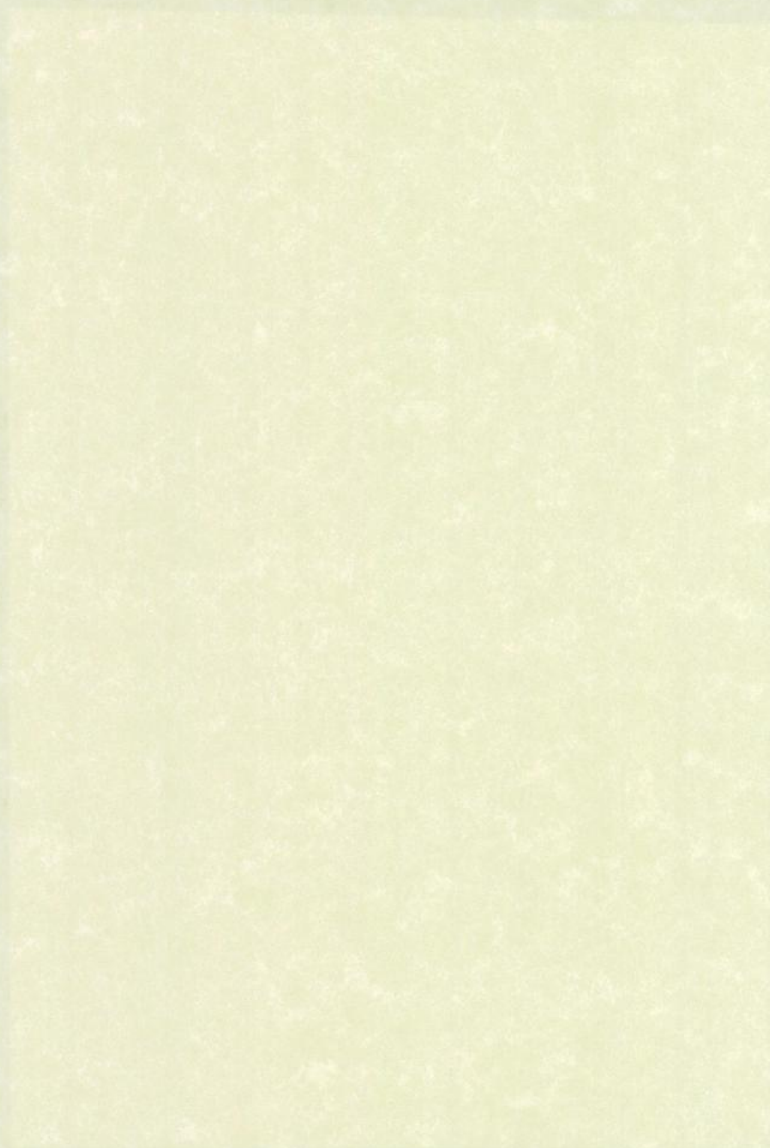






Figure 13 Rusted Fireman's Pole - O'Brien's P ark







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equipment in question (O'Neill, December 1993 - Interview). It is imperative for the safety of the children, that Authorities maintain high standards of maintenance throughout the year. This requires clearly laid out guidelines for internal inspections and an increase in external examinations.

Authorities are now obliged by law to display a notice at the entrance of the playground stating the rules and regulations of the said area (Figure 14). Recommended user age group must be clearly shown as should a contact number for parents/carers to report accidents or faulty equipment. This helps to avoid potential accidents. It also creates a more human link between the users of the playground area and the Authority.

When a playground is properly maintained it is possible to have a wider range of activities for the children. Take for example sand boxes. These are now rarely used in playgrounds. A number of Authorities removed them because they were unhygienic and dangerous. This is understandable as they were accumulating syringes, broken bottles, dog faeces, etc. However, this was as a result of bad maintenance. Dublin County Council have sandboxes in their playgrounds, which are very clean and a great source of enjoyment for the children. Playing with sand is very therapeutic for children especially for those with disabilities who may not be capable of using the more physical stimulation equipment. In addition, to being a very satisfying experience for the child, it also stimulates sensory integration.

*"Digging sand or dirt provides a lot of proprioceptive and tactile input" (Ayres, 1987 p. 72)*

Therefore such a facility should be a feature of a playground.









Figure 14 Notice of Rules and Regulations of Playground







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## 2.4 *Supervision*

The purpose of supervision in a playground is to ensure that a child is not exposed to any type of danger while playing. Supervision prevents misuse of equipment, minimises accidents and discourages perverts or child molesters from frequenting the playground. In Ireland, only one Public Authority - Dublin Corporation - employs full time playground supervision, and this is only in some of its playgrounds. In all of the other playgrounds supervision, like maintenance, is carried out by the park ranger and gardeners.

Non-supervised playgrounds are checked on average four times a day. The Authorities, in general, are quite satisfied with this arrangement. However, some Authorities appear to be under the misconception that this partial supervision carried out by them translates into full supervision. An example of this is the Office of Public Works who claimed that their Authority was only responsible for supervised playgrounds (Doyle, December 1993 - Interview). This is very misleading information, as one is wrongly led to believe that a full time supervisor is employed. In reality the playgrounds in question are checked on the hour. Dublin County Council operates under partial supervision for nine months of the year. During Summer they employ students to supervise the playgrounds (Devoy, December, 1993 - Interview). Summer is the busiest period and therefore there is a higher risk of accidents occurring. In order to minimise this risk it is vital that there is supervision. Dublin Corporation employs full-time supervisors for six of its thirty three playgrounds. A disturbing number of incident of vandalism, violence and drug abuse made it necessary for the Corporation to take this action. In addition, they had received a large number of liability claims arising from alleged playground accidents in these areas. Although other areas suffer from vandalism and drug abuse, it is on a small scale, and Authorities have not found it necessary to supervise them in the same manner (Perry, December 1993 - Interview) When questioned all of the Authorities replied that lack of adequate supervision was as a







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result of insufficient funds, yet they can afford to pay high liability claims. Although Dublin County Council's approach is a temporary solution it is successful and enterprising, and for other Authorities under financial constraint it is a recommended move towards improving the standards of supervision.

Authorities have become very dependent on parental/carer supervision. Notices stating that children cannot play on the grounds without a parent/carer being present are now becoming quite familiar sights (Figure 15). The 1988 Playground Review registered complaints on the lack of seating facilities for parents/carers (Figure 16). Since then there has been a positive turn-round in the Authorities approach as they realised the importance and necessity of parent/carer supervision. The seating is normally positioned directly around the playground area so that the playing children can be easily observed by the parent/carer and vice versa (Figure 17). This is very reassuring for both parties and also allows a healthy degree of independence between them. It also gives the adults an opportunity to relax and talk together. This is very important for individuals who live on their own and because of responsibilities to hand have little opportunity to mix in adult company. When this is successful the playground becomes a meeting place both for the children and the parents.

Playgrounds are like magnets for perverts and child molesters. Unsupervised unsuspecting children can easily be lured from a playground area by a would be offender to an area where they may be sexually and/or physically abused or both. These offenders have the potential to cause serious psychological and emotional damage to their victims. Parents/carers, unlike children become suspicious of adults without children lurking or hanging around the playground. They understand the importance of reporting such incidences to the park ranger/attendant who then in turn will notify the police. Limerick Corporation and the Office of Public Works had to close down toilet facilities near the playgrounds where flashers and molesters









Figure 15 Notice of Rules and Regulations of Playground







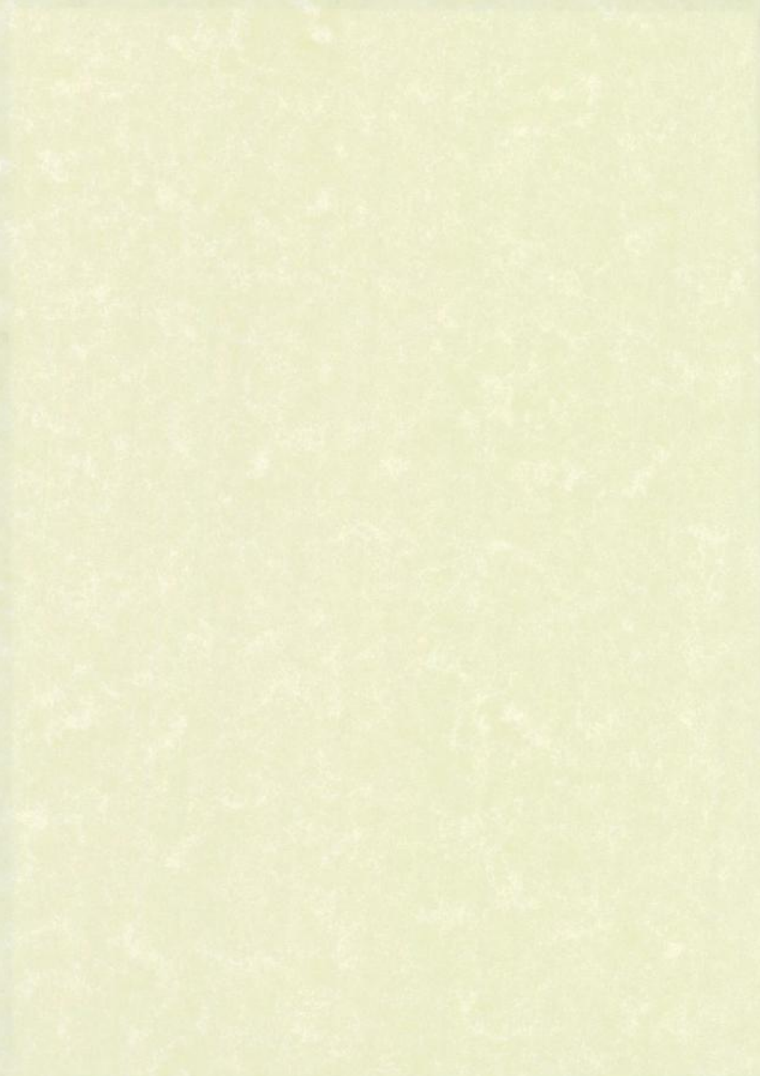


Figure 16 Lack of Seating for Parents/Carers



Figure 17 Supervising Parents/Carers







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were abusing children (Murphy, December 1993 - Interview). This is not an uncommon problem among Authorities. Another measure taken is forbidding single people entering the playground area.

According to playground designer, Ciaran O'Connor, an added bonus of supervised playgrounds is that children can partake in a wider range of facilities (O'Connor, December 1993 - Interview). Examples of this will be shown and discussed in chapter four. Supervision reduces the risk of accidents occurring through misuse of equipment. The most important factor is that supervision reduces the threat of children being exposed to abusers. Within the playground vicinity it is vital that Irish Authorities take these issues seriously and begin to employ full time supervisors for all the playgrounds.

## **2.5 Finance**

Playgrounds are financed through the parks budget. Of the Councils and Corporations surveyed only one - Dublin Corporation - received a specified annual allocation for playgrounds. The remainder are dependent on the goodwill and interest of the Park's Superintendent and the City/County Manager. There are a number of reasons for this laid back attitude towards financial playgrounds.

Public Authorities as a rule do not regard investment in children's facilities as a priority. This attitude is reflected in the words of one city manager who believes that

*"spending on children is indiscretionary spending" (Higgins,  
December 1993 - Interview)*

According to Mr. Higgins, Limerick City Manager, discretionary spending is money spent on providing services for the community, such as parks, water, sewerage systems, rubbish collections etc. (Higgins, December 1993 - Interview). For a community to operate successfully both functional and recreational







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requirements must be met. Parks are enjoyable for young and old alike who enjoy walking and relaxing. However, young children are developing and they have very high energy levels. They need stimulating activities and to be able to climb, swing, jump, slide etc. Parks alone cannot offer this facility to children, but it can be offered through the provision of playgrounds (Bagnall, December 1993 - Interview). It should be remembered that children are also members of the community, thus in serving their needs the Authority is serving the needs of the Community. It is the Authority's responsibility to promote and provide for childrens' play. This is in accordance with the United Nations declaration on the child's right to play (Section 7, 1959) which states that

*"The child shall have full opportunity for play and recreation which shall be directed to the same purpose as education: Society and the Public Authorities shall endeavour to promote the enjoyment of that right" (Hesseltine & Holborn, 1987, p. 26)*

In the 1980s when public service charges were abolished, spending on playgrounds was seriously reduced as funds were redirected by the Authorities to compensate for the loss of charges. Some Authorities have recently re-introduced these service charges - Dun Laoighaire and Fingal West. It will be interesting to see though if the financing of the playgrounds will be affected by this change.

The main factor deterring investment in playgrounds has been the rising number of liability claims against the Authorities relating to playground incidents. This rise has caused a number of Authorities to reconsider investing in these facilities as they are becoming very costly ventures. In an effort to improve the standards they are financing the refurbishment of a number of playgrounds. They are also paying out large sums of money in liability claims, both in the new and old playgrounds. By law, a person can claim for injury a number of years after the accident occurs. In recent years Public Authority Bodies have become very easy victims for liability claims and because of this, people injured in playgrounds years ago are only now bringing their cases to court (Monaghan, December 1993 - Interview). They have







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seen how easy the system can be manipulated. The Authorities cannot change how litigious minded the general public have become but they can challenge it by employing high standards of maintenance and supervision.

## 2.6 Conclusion

*There has in the main been an improvement in the state of Public Authority playground facilities since the 1988 Gay Byrne Review. Irish made adventure play equipment is more economical and equally successful as imported modular units in stimulating the requisite play needs of the older children. However, there is little or no provision of play equipment for toddlers. Research has shown that although there has been improvements in maintenance standards, equipment failure and deterioration will continue unless experienced technicians are employed. The partial supervision presently being carried out by the Authorities is not satisfactory and without full-time supervisors children playing in the playground are in danger of being exposed to abusers and there is a greater risk of accidents occurring through misuse of equipment. Public Authorities in general do not have a set policy on financing playgrounds and investment in children's play facilities is regarded as "indiscretionary spending" (Higgins, December 1993 - Interview). Rising numbers in liability claims have caused Authorities to question the value of Investment in playground facilities.*

<sup>1</sup> The National Playing Fields Association was established to stimulate the provision of playing fields, playgrounds and other facilities for outdoor and indoor recreation and encourage the adoption of play leadership schemes for children (Heseltine Holborn, 1987, p. 23)







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### 3.0 Chapter 3 - AN EVALUATION OF THE FACTORS INFLUENCING INVESTMENT AND INTEREST IN PUBLIC AUTHORITY PLAYGROUNDS

#### 3.1 Introduction

*The purpose of this chapter is to examine the issues which influence investment and interest in Public Authority playgrounds. Research has shown that a number of Authorities are questioning the value of investment in the playground facilities and therefore I propose to examine the reasons for this. I also aim to establish why parents fear for the safety of their children when attending playgrounds. Private playground facilities have become very popular in Ireland and I propose to examine why they are affecting how people perceive Public Authority playgrounds.*

#### 3.2 Vandalism

Vandalism in playgrounds has proven to be a very costly problem for Local Authorities. They have had to pay out substantial sums of money in repairing and replacing damaged equipment and in settling liability claims for accidents caused by this equipment. When grounds are vandalised they become unsafe areas for children to play in. When this happens parents/carers and children alike are obviously very dissatisfied. Vandalism in playgrounds benefits nobody. There has in recent years been a steady increase in vandalism (Murphy, December 1993 - Interview). There are a number of factors which stimulate vandalism.

The culprits are more often than not young bored teenagers who have outgrown the use of the playground. These individuals have no free facilities where they are welcome in the evening time to meet and socialise with their friends. Because of this they return to the area where as young children they established their own territory - the Playground. They are at an age where they begin to experiment with







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drink and drugs. The playground, at evening time, is an ideal place for this as it is unoccupied and there is little danger of them being caught. The damage to the equipment and grounds is often caused by their reactions to the alcohol, drugs or both. It can also be as a result of peer pressure, challenges, acts of bravado or absolute boredom. The underlying factor, though, is the sheer frustration of these young teenagers not having a proper facility to 'hang out' with their friends (Shipman, December 1993 - Interview). The Authorities fail to recognise that in providing such facilities they are minimising the risks of vandalism and therefore reducing liability claims.

The lack of manually creative activities and the rigid aesthetics of the playground also contribute to the vandalism. Although introduced as a measure to avoid vandalism and to ensure safety they have failed miserably on both accounts. A playground is recognised by children as their territory. In order to fulfil this identification the children should be able to impress their personalities onto this chosen area through creating change in the environment (Shipman, December 1993 - Interview). Irish playgrounds as a rule do not welcome or recognise this need. The equipment is firmly concreted into the ground and there are no manipulative materials for the child. Hence, the children in forming an identification may either graffiti an area (Figure 17A) or cause serious mechanical damage to a piece of equipment through abuse or removal of a section. Also lacking in the playground are elements which should be able to grow and develop in accordance with the children. A simple solution to both of these problems would be if the Authorities were to provide graffiti areas for the children. Both parties would benefit as the children would have an area which they could manipulate and change, and the Authorities would have creative graffiti murals as backdrops for the playground. Children need to create change within a play area and Authorities must recognise this.



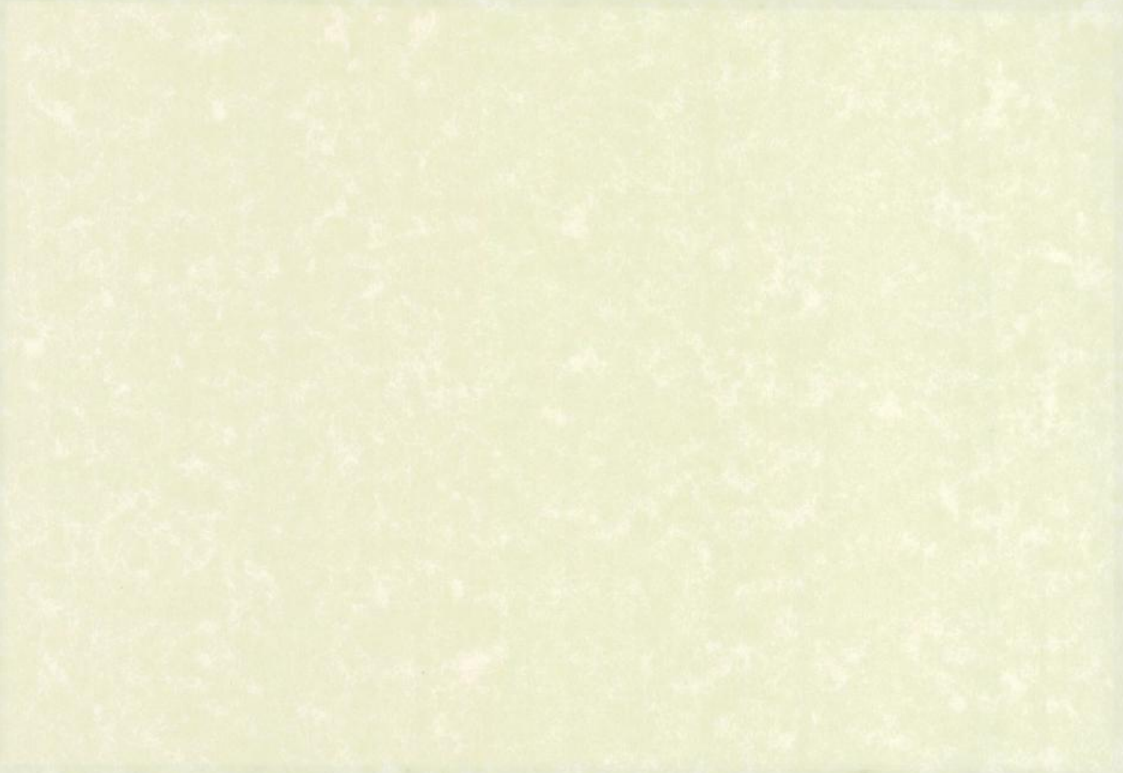






Figure 17A Identification through graffiti in Playground







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Among playground equipment designers there is a constant debate on the issue of adventure and risk in design being over-compromised for safety and anti-vandalism. In the 1980s when everybody was becoming so aware of litigation, the risk and adventure in the equipment was reduced. Although not quite so bad today, it is still an issue. When the equipment is not stimulating, when children tire of using it for its specified use they will experiment with it until it becomes exciting to play on again (Figure 18). In achieving this however, the children can either hurt themselves or damage the equipment. Are designers through the lack of adventure and risk in the equipment feeding the problems they set out to resolve?

Vandalism in playgrounds can be minimised if the Authorities and equipment designers recognise the needs of young people. They need stimulating facilities where they can meet and socialise with their friends. In these environments they should be able to create change and when playing they require adventure and risk.

### **3.3    *Litigation***

Personal liability claims in Ireland have reached the unenviable point whereby per head of population Irish people are now more litigious than their American counterparts (Figure 18A). At present, Cork City processes the second highest number of liable claims among European cities (O'Neill, December, 1993 - Interview). In this country the majority of liable claims are against Public Authority Bodies (Figure 18A). Claims relating to playground incidences have risen to such a level that a number of Authorities are questioning the value of investment (Higgins, December 1993 - Interview). Since the introduction of the present Playground Restructuring Programme there has been a drop in the number of claims. Most of the Local Authorities are still settling claims from incidences which happened years ago. Before the Programme Authority playgrounds were death traps for children.









Figure 18 Looking for adventure



Figure 18A Cartoon regarding claims against Dublin Corporation







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Accidents in playgrounds are caused by a number of factors such as poor quality equipment; vandalised equipment, misuse of equipment or bad surfaces. The risk of accidents occurring is increased by the poor standards of supervision and maintenance carried out by the Authorities. Playgrounds which have not yet been included in the Restructuring Programmes are still using equipment which was designed and manufactured before safety standards were introduced (Figure 19 & 20). This is irresponsible of the Authorities as they should realise that they are risking liable action if a child is injured. If an Authority was brought to court in such circumstances they would be penalised for using such equipment and automatically the claimants costs would be increased (Monaghan, December 1993 - Interview). At present the design, manufacture and installation of all equipment intended for permanent outdoor installation must comply with British Standard 5696 or its German equivalent D.I.N. Standard. Although accidents cannot be avoided if the equipment is used in other ways to its specified purpose or if it is not maintained by the Authorities. In order to minimise accidents in the playgrounds the Public Authorities must use equipment which has passed safety tests, and employ high levels of supervision and maintenance.

A survey of Dublin Corporation claims showed that a third of the accidents involved children falling off slides and getting caught in see-saws (See Appendix II). In the majority of the cases the children were too young to be using the equipment. Authorities inability to provide for young toddlers is a big problem in playgrounds.

### **3.4 *In the Playground***

A parent's primary concern about the playground is that the child can play safely on the equipment and in the grounds.

It is vital, therefore, that the equipment is in good working order at all times. This however, is not always the case with some Public Authority Playgrounds in Ireland,









Figure 19 The banned rocking horse is still in use - Merrion Square



Figure 20 A see saw still in use -- Drumgeely Playground, Shannon







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as equipment is left to deteriorate on the grounds. Parents have found that Authorities do not consider an item of play equipment dangerous until a number of children have been injured while playing on it. When they do eventually remove it, they are very slow to, and often do not replace it. These concerns are voiced by one parent, Mrs. Rita Kelly of Ballymun, on the dreadful conditions of a Dublin Corporation playground in Ballymun (figures 20A & 20B).

*"It is really dangerous for our kids to go out there. There was a slide but it had to be taken down because so many had got hurt. Now there is nothing - not even a swing for them to play, and they (The Corporation) don't even keep the place clean" (Sunday World, February 27th 1994, p. 3*

Public Authority Playgrounds, in the main do not provide adequate play equipment for toddlers. Parents have found, as a result of this, that their toddlers wander aimlessly around playing with the rubbish on the grounds. This can be very dangerous as due to lack of proper maintenance the playgrounds are often littered with broken bottles, beer cans, needles, etc. Uncontrolled, a young, naturally inquisitive child could cause him/herself serious injury. In circumstances such as this parents cannot relax and have to restrict their movement, and keep a vigilant eye on the activities of the young child. This can be quite difficult and pressurising for the parent who may have to look after other children

### 3.5 Access

As a result of neighbourhood playgrounds being phased out, children now have to travel greater distances to avail of playground facilities (Devoy, December 1993 - Interview). In some cases parents are unable to accompany their children to the playgrounds and so the children travel on their own. It is very important therefore for parents to know that their children are safe when travelling to these playgrounds. Playgrounds should not be located beside busy roads. The access









Figure 20A Equipment in Ballymum Flats playground



Figure 20B Equipment in Ballymum Flats playground







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routes should be easily seen and not sheltered by dense overgrowths of tree or hedges etc. There are a number of reasons for this.

When a playground is situated beside a busy road, a number of children will have to cross the road to gain access. A child's life could be easily endangered if proper provisions are not employed by the Authorities such as pedestrian crossing or 'lollipop' person. Children find it difficult to concentrate on crossing the road properly and it is therefore essential that adequate provision is made to ensure their safety.

Parents worry about their children being attacked when going to and coming from the playground. Dense overgrowth of trees or bushes near the access routes of a playground are not recommended as they could provide shelter for a potential child molester. To avoid the same risk, children should not have to travel through unoccupied or disused land to get to the playground. All pathways and roads leading to the playground should be easily visible by passer byes and well lit in evening time. The Authorities should further ensure that these access routes are patrolled at regular intervals. Children should be able to travel safely to the playground area both on their own and in the company of others (i.e. peers, parents, etc).

### ***3.6 Indoor Adventure Playgrounds***

The first indoor adventure playground 'Fun Factory', (Monkstown, co. Dublin) opened in 1991. Its popularity among children and parents alike prompted the development of similar facilities throughout the country. These playgrounds are privately owned and the children pay per hour of play (approximately £2.25 per hour). They are designed for use by children between the ages of two years and twelve years.







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The equipment - spiral and tunnel slides, bouncing castles, ball pools etc - is bright and cheerfully coloured, and promotes gross motor activity and group participation (Figures 21-22). Special play facilities are available for children under five years of age. These are separated from the main play area. The playgrounds employ very high levels of supervision with one or two supervisors in charge of each playpiece. For the parents/carers there is a cafe and seating facilities which are either beside or overlooking the children's play area. Some playgrounds also provide reading materials and a television room. Hosting birthday parties for the children is a very popular service which all the playgrounds provide. For the special occasion they supply party food and drinks and if wished, the event can be video-recorded.

These privately run indoor adventure playgrounds offer a number of advantages over Public Authority Playgrounds. Because of the high levels of supervision employed the equipment is more adventurous and exciting than in Public Authority Playgrounds. Examples of this are bouncing castles, ball pools and slides which are bigger and steeper, etc. The parents/carers knowing that their children are playing in a very safe environment can relax and also enjoy the facilities offered by these companies. They are also ideal places to play in winter, when weather conditions can be unsuitable for outdoor play. These indoor adventure playgrounds are however, very expensive. They are a luxury which unemployed parents may not be able to afford.

### 3.7 Conclusion

*The Authorities inability to provide adequate maintenance and supervision has not been very cost effective, as it has resulted in high levels of vandalism, accidents and liability claims. Parents are not only dissatisfied with the poor quality supervision and maintenance employed by the Authorities, but also with the lack of proper play facilities for young toddlers.*









Figure 21 Indoor adventure playground - toddler facilities

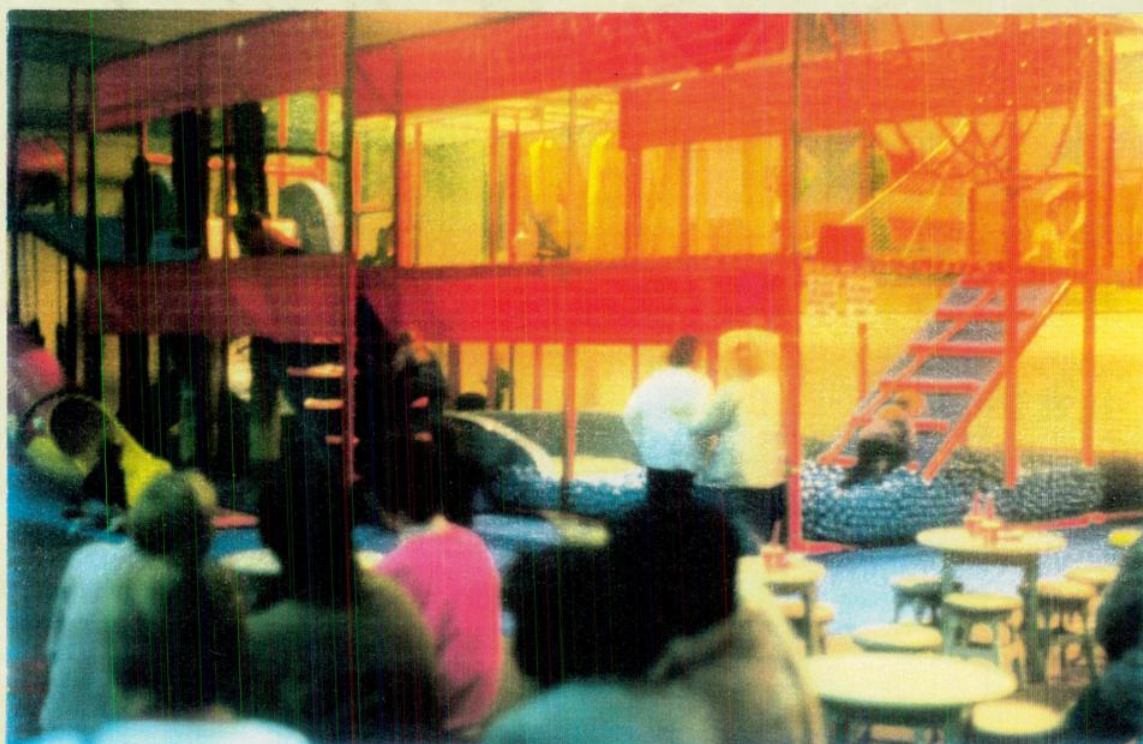


Figure 22 Indoor adventure playground - parent/carer facilities







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*The core reason for the success of private Playgrounds is that they employ high levels of supervision. Through the facilities they provide they have shown, unlike the Public Authorities, a sensitive awareness to the needs of both children and parents.*







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## 4.0 Chapter 4 - AN EVALUATION OF ALTERNATIVE PLAYGROUND ENVIRONMENTS.

### 4.1 Introduction

*The purpose of this chapter is to evaluate the approaches of Denmark and Japan with regard to playground design. These countries have created two very different play environments in facilitating the play needs of children. The aims of this chapter are to analyse the effects of these alternative approaches and to examine suitability for implementation by the Irish Public Authorities. I propose to undergo this evaluation by firstly examining the attitudes towards play in these countries and secondly by investigating the facilities in these environments. Finally, having established this to determine the feasibility of having such playgrounds in Ireland.*

### 4.2 Denmark

Denmark, through its actions is recognised as being the first country to seriously realise the importance of play for the healthy development of children. Since 1939 special laws have been introduced into Denmark to ensure that children are not deprived of this essential requirement. Their alternative approaches to play environments - the "skammellegepads" have been a design inspiration for adventure playgrounds in a number of countries. The Danish attitude to play is reflected in their colourful, exciting and innovative equipment designs which are used in playgrounds throughout the world (Figure 23).

In 1939 "The City of Copenhagen Building Act" stated that playground facilities must be provided in areas where more than eight families were living. These playgrounds had to be situated away from traffic and commercial activity areas (O'Connor, December 1993 - Interview). This law still exists and accounts for the very vast number of small playgrounds throughout Copenhagen. These playgrounds









Figure 23 Danish Play Equipment







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are very important for young children who are still insecure and only comfortable when playing near the home-

*"An infant feels 'at home' only when it is allowed to play near its mother" - Ledermann (Friedberg, 1976 p. 7)*

Older children prefer the "skammellegepads" which are exciting and offer adventure. These playgrounds are supervised by professional people who receive three years of pedagogical training. The Dutch Authorities insist on employing supervisors who are not only enthusiastic about children's play but who are skilled in understanding the children's needs.

C. Th. Sorensen was responsible for the creation of the 'skammellegepads'. The idea evolved from Sorensen's observations of children playing. He found that children were happier and more interested in playing with materials on building sites than when playing on manufactured playground equipment. The children's delight at building and creating their own play structures prompted Sorensen to develop a playground which encouraged these activities (Friedberg, 1976, p. 14).

The playground was opened in 1943, in Emdrup, a suburb of Copenhagen for the Workers Co-operative Housing Association. It was to become the first of many 'skammellegepads' in Denmark. From the outset children were involved in the design, construction, management and development of the playground. In the beginning, due to war shortages, the only materials available were sand, earth and plants. The children began their alternative playing by building earth mounds, sand pits and planting shrubs and trees. All the facilities for the young children for example sandboxes, tables, etc. were built by the older children. Throughout the project play leadership such as this was encouraged among the children. In the fifties and sixties when a wider range of materials was available, the playground







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continued to use the basic construction materials such as building timber, industrial piping etc. As the children gained more experienced in building, the play structures became larger and more adventurous.

Each week a meeting was held between the supervisor and the children to make decisions on the playground. Issues such as types of equipment to build, activities to be introduced, etc. were discussed. The children raised money to finance the running costs of the playground by doing waste paper collections and newspaper deliveries during their spare time. In 1965 the 'Children and Juvenile Welfare Act' was passed and the Government and Local Authority Bodies became responsible for 80% of the operating costs for all the playgrounds in Denmark (Shipman, December 1993 - Interview). With this financial assistance the playgrounds could now afford to expand the range of activities which they provided for the children. Examples of this diversity were animals kept and cared for by the children in the playground, planting and growing of vegetable and flower gardens and the participation in pottery, drawing and writing workshops (O'Connor, December 1993 - Interview. Parents and older members of the Community were invited to participate and help in these activities. On festive occasions the children would organise open days at the playground and exhibit their work and achievements to-date.

The success of the 'skammellegepad' at Emdrup influenced the creation of similar playground projects in Denmark and Switzerland. A pilot project was built in Minneapolis, U.S. - 'The Yard'. However, due to lack of both community spirit and government interest the project was closed after a year. Community spirit seems to have been the key ingredient to the success of Emdrup. This could not have been achieved without the involvement of the children in all stages of decision making from construction to planning future developments. The wide range of activities ensured that all types of children's needs were met, from the physically boisterous child to the passive child. The creative and healthy atmosphere of the







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"skammellegepads" are further enhanced by the landscaping and the animals roaming freely through the ground. The commitment of the Danish Government in financing these playgrounds and training skilled supervisors to meet the needs of the children of Denmark is tremendous. Denmark's achievements in providing stimulating and innovative play environments for children of all ages is an example to other countries (O'Connor, December 1993 - Interview)

#### **4.3 Japan**

The Japanese term for play is 'asobi'. It relates to activities which are creative, out of the ordinary or opposed to work. The children of Japan to day are getting less and less opportunity to engage in 'asobi' The value of play in this country has steadily deteriorated over the past forty years (Senda, 1992, p. 5-8). Neighbourhood playgrounds have become almost extinct as finance and interest is invested in large amusement parks.

Children's play spaces are now approximately a tenth of their original size. Their playtime has been reduced by 40% and the number of children's play companions have also fallen. With this decline the variety of games played are also less adventurous (Senda, 1992, p. 7). The two most influential factors in this decline are urban development and increased competitiveness within the schools. However, as a result of this lack of play the children of Japan are suffering. Evidence of this is shown in the increased number of suicides among children, their introvertedness and the large number suffering from adult diseases (Senda, 1992, p. 6) Japan is a developing country and those in power should realise the importance of play for the healthy development of their children. In a number of years time it is these individuals who will be responsible for the future of Japan.

The amusement parks are equipped with enormous sculptural structures. These are created to stimulate physical and cognitive development, and to encourage group







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formations. Most of the structures are open-plan. However, some are enclosed and the children can move inside of them exploring different forms of space. An example of this is the "Ping Pong" (Figure 25), which is made up of a series of connected one meter diameter, semi transparent spheres. It is both a safe and reassuring play piece as the parents can see the children at all times while they play inside and vice versa. The work of M.C. Escher, the Dutch graphic artist is hugely popular in Japan and some of his forms are reflected in the designs of the playground equipment. An example of this is Mobius Band (Figure 28) which is a 180 metre long wooden structure. The running panel slopes in different directions some of which are steeper than others. It is very exciting for the child who in some places has to keep running otherwise he/she will slip off.

In accordance with the Japanese interest in education a number of the amusement parks have been developed into scientific parks. All of the equipment is designed around devices with educational slants. Examples of these are the 'Echo Tube' which as the name suggests explores the sounds of echoes in different sized tubes and the 'Magic Tube' which displays the effects obtained through using lenses of different sizes and intensities. A number of these parks are sponsored by some of Japan's leading Corporations eg. Nippon Steel Corporation Park. This is quite ironic as it was companies such as these that were responsible for children losing their original neighbourhood playgrounds (Senda, 1992 p. 7).

Mitsura Senda is one of Japan's foremost designers of play structures and play environments. He also believes that the child should learn while playing. However, unlike the scientific parks obvious educational intent, Senda aims to create a more subtle awareness in the child. He achieves this by stimulating the child's imagination using different textures, lights and sounds in his designs. 'Big Horn' is an example of this. The horn is made up of a maze of inter-connected







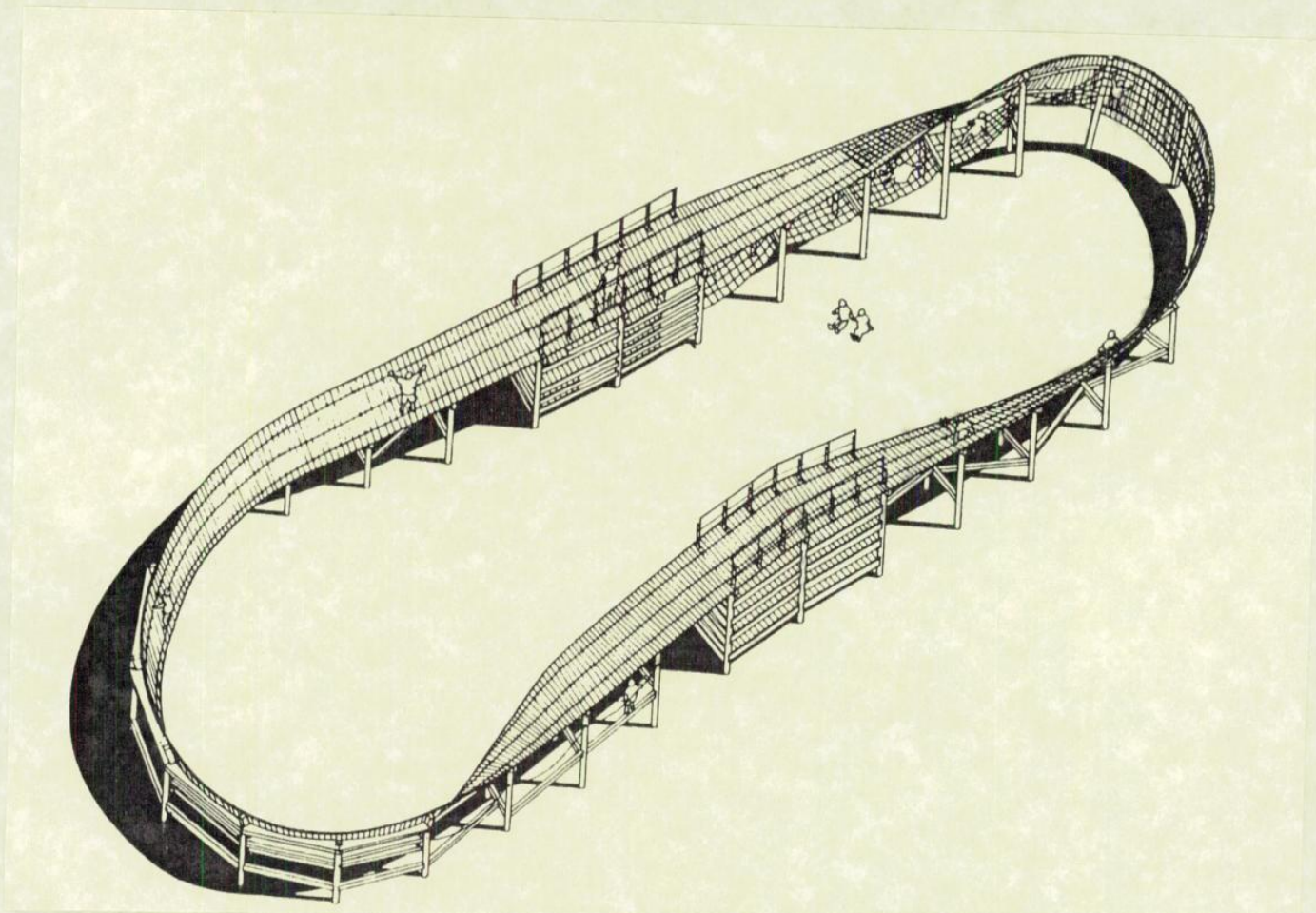


Figure 24 "Mobius Band"







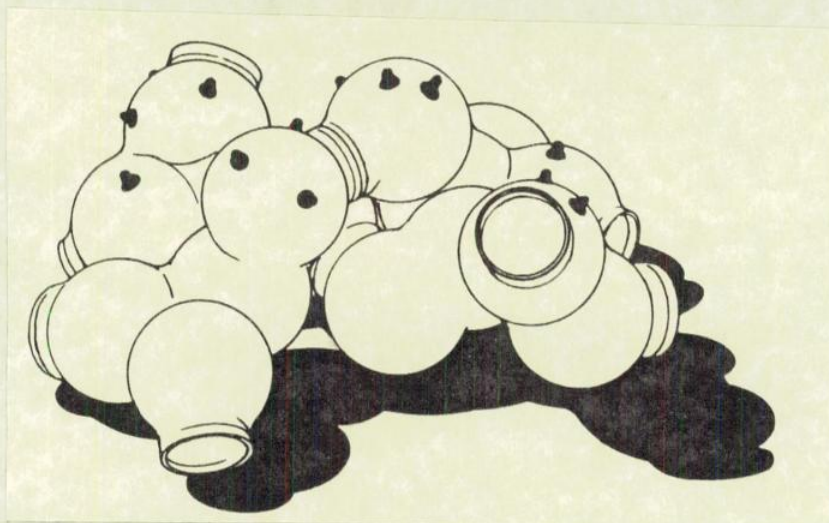


Figure 25 "Ping Pong"









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tubes of different sizes. The child has to figure out which tubes are connected by speaking into one and listening into the others for a reaction.

Although the amusement parks are enjoyable and educational they seem to lack the sense of community spirit which is synonymous with neighbourhood playgrounds. Amusement parks are not as easily accessible as the neighbourhood playground for children on their own. As a result of this a lot of children lose out on valuable opportunities to play.

#### **4.4 Conclusion**

*The Danish community effort in creating play facilities for their children is very successful. Sensitivity towards the needs of children is reflected in the provision of neighbourhood playgrounds for small children and for older children the more adventurous and creative "skammellegepads". Successful playground environments such as those which exist in Denmark, require commitment from the Government, the Public Authorities and the local community concerned. Research has shown however, that this commitment does not exist in Ireland. The examples of Denmark shows the positive results which can be gained from allowing the children to contribute to the running of the playground. This has yet to be realised in Ireland.*

*Japan on the other hand, although creating large, educational amusement parks, is continuing to deprive children of play by failing to recognise the necessity and importance of neighbourhood playgrounds in the healthy development of a child. Ireland is also falling into this trap. As Irish Public Authority playgrounds are as yet undeveloped, Ireland has the opportunity to learn from the positive and negative experiences of Denmark and Japan.*







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## CONCLUSION

The aim of this thesis was to determine whether Irish Public Authority playgrounds fulfilled the play needs of children, and to examine the effects of alternative playground environments, so as to investigate the feasibility of adopting similar policies within Irish Public Authority playgrounds. Through research into these areas I have arrived at the following conclusions:

Participation in physical, social and cognitive play is essential for healthy development of a child. A playground should be capable of stimulating these types of plays and should also be a safe environment. There has in recent years been an improvement in some Public Authority playgrounds. However, non-provision of play facilities for toddlers continues to be an issue of concern. Some Authorities now design and make their own equipment using Irish grown timber and this has proven to be very successful and very economical. There is only one commercial playground equipment manufacturer in Ireland. The Authorities in the main, are not implementing adequate standards of maintenance and do not have proper levels of supervision in place. While this negligence continues, the risk of vandalism and liability claims will remain. Children's well being and safety will also continue to be endangered. Successful playground environments, such as those which exist in Denmark, require commitment from the government, the Public Authorities and the local communities concerned.

For the successful development of the Irish Public Authorities I recommend the following;

As a designer, I see the potential to satisfy the play needs of children. Through making playgrounds more enjoyable, more educational and more entertaining. I feel that the first and most important step is to involve the child in the design of the playground from the outset.







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Playground equipment should be fun to look at and exciting to touch. This can be achieved through bright cheerful colours and different textures and will bring a smile on a drab day. Visual improvements to present day playgrounds can simply be achieved by painting them brightly. Furthermore, I recommend the addition of adventure equipment to the traditional playground and the removal of all below-standard equipment which does not meet the requirements of BS 5696. These high quality standards should be inherent in all purchased or manufactured equipment.

I also feel that there is the potential to exploit an international market demand for high quality well-designed play equipment through using Irish materials and manufacturing processes.

Presently there are a lot of problems relating to lack of supervision and maintenance and I feel that an enterprising solution to this problem would be a FAS Training Scheme which would educate supervisors of playgrounds in both the areas of supervision and maintenance. I feel that the advantages of this would be two-fold. Firstly, greater supervision would allow for a wider range of activities and secondly, improved maintenance would reduce unnecessary risks and therefore minimise liability claims. This should also reduce the entry price to private playground facilities and therefore make them more accessible to all children.

As research has shown playgrounds play a significant role in developing community spirit (Friedberg, 1976, p. 3). Both urban and rural Irish communities can benefit from having safe and fun places for their children to play in. I believe that to adequately provide this, special laws must be introduced whereby a playground must be built where a more than of eight families live. I have chosen this figure based on the success of the Danish approach.

*I feel that playgrounds are necessary to keep the spirit of the child alive and give them the opportunity to express themselves.*















## PLAYGROUND DESIGN IN IRELAND

Name of Playground \_\_\_\_\_

Location \_\_\_\_\_

Population Playground is serving \_\_\_\_\_

Year opened \_\_\_\_\_

Who was responsible for Design and Layout of playground - (Please give name of individual or company)

A) County Engineers Department \_\_\_\_\_

B) Consultant \_\_\_\_\_

C) Other \_\_\_\_\_

Is the playground - (Please tick appropriate space)

A) Outdoor Yes \_\_\_\_\_ No \_\_\_\_\_

B) Indoor Yes \_\_\_\_\_ No \_\_\_\_\_

C) Outdoor &amp; Indoor Yes \_\_\_\_\_ No \_\_\_\_\_

Is the play area enclosed by perimeter fencing Yes \_\_\_\_\_ No \_\_\_\_\_

Recommended user age group \_\_\_\_\_

**Playground Equipment**

Name of Supplier of Equipment \_\_\_\_\_

Type of equipment installed in grounds - (Please state number of pieces)

A) Slide \_\_\_\_\_ Tunnel slide \_\_\_\_\_ Spyroslide \_\_\_\_\_

B) Seesaw \_\_\_\_\_ Spring seesaw \_\_\_\_\_

C) Climbing frame \_\_\_\_\_ Horizontal ladder \_\_\_\_\_







2.

- D) Spin around \_\_\_\_\_ Witches hat \_\_\_\_\_
- E) Activity Wall \_\_\_\_\_ Activity panel \_\_\_\_\_
- F) Swing \_\_\_\_\_ Swinging plank \_\_\_\_\_
- G) Rocking horse \_\_\_\_\_ Spring rider \_\_\_\_\_
- H) Play hut \_\_\_\_\_

### Maintenance of Equipment

Do you have a specific set of guidelines for the maintenance of the equipment

Yes \_\_\_\_\_ No \_\_\_\_\_

Is there a set timetable for equipment maintenance? Yes \_\_\_\_\_ No \_\_\_\_\_

How frequently is the equipment over hauled? Is it every

- A) Six months \_\_\_\_\_
- B) Year \_\_\_\_\_
- C) Two years \_\_\_\_\_
- D) Five years \_\_\_\_\_
- E) Other - (Please state) \_\_\_\_\_

When damaged equipment is removed from the play area is it

- A) Replaced by a new model of the same type \_\_\_\_\_
- B) Replaced by a completely different piece of equipment \_\_\_\_\_
- C) Not replaced \_\_\_\_\_







3.

Are new pieces of equipment added to the play area Yes \_\_\_\_\_ No \_\_\_\_\_

How frequently are new pieces added to the play area? Is it every

A) Two years \_\_\_\_\_

B) Five years \_\_\_\_\_

C) Ten years \_\_\_\_\_

D) Other - (Please state) \_\_\_\_\_

**Type of Surfacing used in play area**

A) Tarmac \_\_\_\_\_

B) Gravel \_\_\_\_\_

C) Concrete \_\_\_\_\_

D) Playscreed Tiles \_\_\_\_\_

E) Action mat \_\_\_\_\_

F) FX Tiles \_\_\_\_\_

G) Other - (Please state) \_\_\_\_\_

**Facilities for Handicapped Children**

Can the play equipment be used by handicapped children? Yes \_\_\_\_\_ No \_\_\_\_\_

Please state specific equipment \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

If the answer is no to the above question is there a reason? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_







**Facilities for parents**

Furniture in play area other than play equipment - (Please state number)

- A) Benches \_\_\_\_\_
- B) Tables \_\_\_\_\_
- C) Rubbish bins \_\_\_\_\_
- D) Other - (Please state) \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Is there a shelter area provided with outdoor playgrounds Yes \_\_\_\_\_ No \_\_\_\_\_

**Supervision of playarea**

Is the play area supervised Yes \_\_\_\_\_ No \_\_\_\_\_

Is there a specific training scheme for supervisors Yes \_\_\_\_\_ No \_\_\_\_\_

Days of supervision A) Monday to Friday \_\_\_\_\_

B) Monday to Sunday \_\_\_\_\_

C) Weekends only \_\_\_\_\_

Hours of supervision A) 9.00 - 18.00 \_\_\_\_\_

B) 9.00 - 12.00 \_\_\_\_\_

C) 12.00 - 18.00 \_\_\_\_\_

D) 14.00 - 18.00 \_\_\_\_\_

E) Other - (Please state) \_\_\_\_\_

Is there lighting facilities in the play area? Yes \_\_\_\_\_ No \_\_\_\_\_







**Distinctive features in playground**

Please state \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Financing**

In the council budget is there a specific finance allocation for playgrounds?

Yes \_\_\_\_\_ No \_\_\_\_\_

How is it distributed among the playgrounds within the council borough?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

1993 budget allocation for playgrounds in

A) County \_\_\_\_\_

B) Playground in question

\_\_\_\_\_

Actual cost per annum of upkeep and maintenance of playground? \_\_\_\_\_

**Claims directly connected with the play areas**

Has there ever been any claims against the playground? Yes \_\_\_\_\_ No \_\_\_\_\_







6.

Number of claims per annum

A) 2 > 5

\_\_\_\_\_

B) 5 > 10

\_\_\_\_\_

C) 10 > 15

\_\_\_\_\_

Types of claims

A) Falling off equipment

\_\_\_\_\_

B) Getting caught in moving equipment

\_\_\_\_\_

C) Tripping on surface of play area

\_\_\_\_\_

D) Other - (Please state)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Could you give an indication of the average amount received by claimants? - (£)

A) 100 > 1,000

\_\_\_\_\_

B) 1,000 > 5,000

\_\_\_\_\_

C) 5,000 > 10,000

\_\_\_\_\_

D) 10,000 > 20,000

\_\_\_\_\_

E) Other

\_\_\_\_\_

Has the number and type of accident claims been of such a level, that investment in playgrounds must be questioned? \_\_\_\_\_

Has there been a number of dubious or bogus claims?

Yes \_\_\_\_\_ No \_\_\_\_\_

Percentage of such claims in relation to overall claims

\_\_\_\_\_ %







Do you think that there should be more investment in playground facilities?

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If you have any additional comments to make on playgrounds please do so below

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Thank you for your time and co-operative in filling out this questionnaire. I would be very grateful if you could return this form as soon as possible to

**Rhoda Daly**  
**4th Year Industrial Design**  
**National College of Art and Design**  
**100 Thomas Street**  
**Dublin 8**

**Tel: 01 - 6711377**  
**Fax: 01 - 6778468**







## APPENDIX II

### Public Liability Claims relating to playground incidents against Dublin Corporation

(1984-1993)

**NOTE:** Successful claims with costs awarded are as indicated. The claims of 'no detail' are presently being heard in court and the remaining are pending cases

Date	Description	Reference
24.09.93	Toddler struck by wheels on <i>MERRY GO ROUND</i>	394
11.08.93	Injury on <i>MONKEY FRAME</i>	382
28.06.93	No Detail	390
22.06.93	No Detail	377
21.06.93	Dress caught fire while on <i>SLIDE</i>	351
02.05.93	Tripped over exposed metal base of <i>SEE SAW</i>	348
13.04.93	Slipped from <i>SLIDE</i>	391
01.03.93	No Detail	407
25.04.92	Fell on <i>BROKEN TAR-MACADAM</i> surface on to metal piping	383
03.08.91	Cut knee on <i>SLIDE</i>	174
01.08.91	Fell off <i>SLIDE</i> & hit head (£4,000 + Circuit Court Costs '93)	171
19.02.91	Tripped on <i>CONCRETE BLOCKS</i>	150
30.01.91	Tripped on <i>LUMP OF CONCRETE</i> onto iron bar	135
01.09.90	Tumbled from <i>MONKEY PUZZLE</i>	157
17.03.90	Injured on <i>SLIDE</i>	46
27.03.90	Collided with <i>BARBED WIRE FENCE</i> - case dismissed	73
11.03.90	Fell over a half <i>COLLAPSED WALL</i> - Broken arm	52







Date	Description	Reference
23.09.89	Fell over wall aftr <i>RAILINGS</i> were removed	11
05.09.89	Tripped over <i>WIRE ON GROUND</i> and hit head on concrete block	1
05.09.89	Fell off <i>BUILDERS SKIP</i> onto tarmacadam surface	249
10.06.89	Injured on <i>SLIDE</i>	78
23.07.89	Arm injured by <i>PROTRUDING STEEL PLATE ON REAR WALL RAILING</i>	23
10.07.89	Injured on <i>SLIDE</i>	70
10.10.88	Caught foot in <i>SEE SAW</i> (Received £4,100 '91)	88
14.09.88	No Details	26
19.07.88	Caught foot in <i>SEE SAW</i> , (Received £2,550 '89)	24
13.07.88	Injured on <i>SLIDE</i>	74
05.04.88	Trapped under <i>BASKETBALL FRAME</i> (Received £1,900 '91)	197
[24.08.87	Tripped on loose <i>COBBLE BANKING</i> onto broken glass	265
27.04.87	Fell through hole in <i>MERRY GO ROUND</i> (Received £31,000 '91))	197
05.08.86	Tripped and <i>FELL OFF STEPS</i> in play area.	58
15.07.86	Fell into <i>UNGUARDED EXCAVATION</i> (Received £1,000 '90)	8
16.02.86	Injured on <i>SEE SAW</i>	68
09.06.84	Fell from <i>SLIDE</i>	85







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## INTERVIEWS

<b>BAGNALL, David</b> (Architect & Playground Designer)	Subject	Development of Playground Design in Ireland. Parents Concern
	Location	Brady, Shipman & Martin (Architects), 26 Temple Road, Dublin 6.
	Date	9th December, 1993
<b>DEVOY, Michael</b> (Playground Designer & Engineer)	Subject	Dublin County Council Policy on Playground Development
	Location	Parnell Square, Dublin 1
	Date	15th December, 1993
<b>DOYLE, Brenda</b> (Official in Parks Division)	Subject	Office of Public Works Policy on Playgrounds
	Location	Phoenix Park, General Office
	Date	26th November, 1993
<b>HARRIS, Lorelai</b> (Reporter)	Subject	Review of 1988 Public Authority Playgrounds - Parents' concern.
	Location	RTE, Donnybrook, Dublin 4
	Date	10th January, 1994
<b>HIGGINS, Jack</b> (City Manager)	Subject	Limerick Corporation Policy on Investment in Childrens Play Facilities.
	Location	City Hall, Limerick.
	Date	20th December, 1993
<b>HOCTOR, Marie</b> (Playground Equipment Designer)	Subject	The Status of Playground Equipment Manufacture in Ireland compared with that of other European Countries
	Location	Cavanagh Playground Equipment, Ballingaray, Roscrea, Co. Tipperary.
	Date	15th December, 1993







McKNIGHT, Lisa (Playground Designer & Assistant Engineer)	Subject	Corporation's Restructuring Programme on Playgrounds.
	Location	Bedford Lodge, Mount Prospect Ave., Clontarf, Dublin 3
	Date	29th November, 1993

MONOGHAN, Charles (Claims Department Official)	Subject	Liability Actions taken against Dublin Corporation
	Location	Bedford Lodge, Mount Prospect Ave., Clontarf, Dublin 3
	Date	29th November, 1993

MURPHY, Des (Parks Superintendent)	Subject	Limerick Corporation's Policy on Playgrounds, its History, Present State and Future Development.
	Location	City Hall, Limerick.
	Date	22nd December, 1993.

O'CONNOR, Ciaran (Playground Designer & Architect)	Subject	Office of Public Works Policy on Playgrounds, the Development of Playgrounds in Ireland and Denmark. Parents Concern
	Location	The Office of Public Works, 15 Lower Hatch Street, Dublin 2
	Date	3rd December, 1993

O'NEILL, Shane (Playground Designer & Architect)	Subject	Evolution and Development of Playgrounds Worldwide Parents Concern.
	Location	O'Neill & Associates, Harbour Road, Howth.
	Date	1st December, 1993

PERRY, George (Parks Department Official)	Subject	Corporation Policy on Playgrounds
	Location	Capel Buildings, Capel Street, Dublin 1
	Date	24th November, 1993

SHIPMAN, Philip (Playground Designer & Architect)	Subject	The Development of Playground Design in Denmark. Parents Concern
	Location	Brady, Shipman & Martin, 26 Temple Road, Dublin 6.
	Date	9th December, 1993



