

## **Neophilic Modification - An experiment in Novelty.**

### **A Report for Islington Play Association by Bob Hughes.**

As a playworker, my primary professional obligation is the development and operation of environments for children to engage in play. And in that capacity I feel pretty confident that over the years we have cracked some of the more intractable problems regarding play and the environment.

For example we have integrated numerous theories and applications into our practice where they have seemed appropriate - loose parts, play cues, cycles and frames, playtypes, hermaneutics, risk, calibration, therapeutic and evolutionary playwork - we have developed sensory rationales for planting and landscaping, and we have acknowledged the importance of fire, water and ritual as manifestations of the recapitulative power of play, as it addresses human needs as evolving organisms that echo over millions of years.

We know that children organically gravitate to natural, diverse, elemental, adult-free environments in which to play, so we try to reflect these in our work. Equally we know that children's nomadic ranging is a methodology for randomly locating and exploring interesting and challenging spaces, so we try to ensure experience of this too, via layout and design.

In fact, given that play is incontrovertibly linked to processes vital to our survival as a species - brain and muscle growth, neural organisation, cortical maps and consciousness, combinatorial flexibility and even sanity - it seems intelligent to ensure that when our children use the spaces we operate, they are able to access all of the diversity they would have once encountered in their ancestral environment, what Bowlby called the environment of evolutionary adaptedness, or EEA. For although children are indeed creatures of the 21<sup>st</sup> century too, as Wilber tells us, they are also an amalgamation of each of their previous evolutionary stages, and not a single separated discrete stage. And each of these stages, particularly the Palaeolithic - our most recent evolutionary stage and the one during which we inhabited the EEA - needs playful support and sustenance.

I would like to focus this report on an aspect of the play environment which has received less attention than those I mention above, namely its neophilic content and the role of modification in increasing it.

#### **Neophilia and play.**

Lorenz (1972) calls players, specialists in non-specialisation - suggesting that they treat everything as being of potential biological significance. This makes specialists like humans, fascinated by the unknown, a characteristic called 'neophilia' by Desmond Morris (1964). He used the term 'neophilia' or attraction to the novel, to describe the impact of novelty on primates in London Zoo. He found that novel objects placed in the animal's cages stimulated exploratory behaviour and this encouraged him to conclude that the primates were neophilic, ie instinctively attuned to novelty, and preferred environments that contained it, to environments that did not. These findings were also echoed in Rosenzweig's (1961) work on environmental impoverishment and enrichment.

And it is the notion of novelty as manifested in structures, toys, colours, flags and icons, acting as stimulus switches and outlets for archetypal narratives, which has unconsciously been behind the practice of modification on adventure playgrounds for well over half a century. In fact it is the application of the neophilic principle that led playworkers years ago to suggest that play spaces needed to be in a state of continuous physical revolution if they were going to provide the kind of

stimulation necessary to hold the imaginations of children and engage them in evolving and graduated play repertoires.

I recently took the opportunity to look more closely at the idea of neophilic modification when Islington Play Association employed me to develop a project around this idea. This paper is a brief description and examination of the experiment that resulted.

During the period 2005-2008, I have been running an experiment to discover what, if any, is the relationship between play environment modification and children's locomotor play levels. As well as a way of assessing play's contribution to children's physical health and the obesity agenda, the experiment has increasingly become identified, as providing valuable qualitative and quantitative data on the different manifestations of novelty and their various impacts.

The theoretical assertion behind the experiment was that environmental modification, by providing what is called a neophilic focus, would stimulate children's physical activity, and have the affect of compensating for their lack of opportunity to range, and thus for their limited access to normal environmental variability.

### **Method.**

The changes or modifications that were initiated during the experiment were intended to add excitement, fantasy and a varying degree of risk to each of the five adventure playgrounds in Islington that were part of the experiment. The choice, and normally the design and construction, of each modification was made by synthesising the views of the playworkers, the children and myself. On some occasions we also had help from volunteers and other IPA workers.

### **Playground one.**

The modification on playground one involved the construction of a rope bridge. This particular development being intended to add a focus for imaginative narratives that would add tension and excitement to what I perceived as an otherwise fairly undemanding experience.

### **Playground two.**

The modification on the second playground involved installing wooden runways and stepping-stones. These were intended to provide an off-ground component to games, necessitating a coordinated and calibrated approach on the part of the children

### **Playground three.**

On playground three, the playworkers and children wanted something that would make it possible to access a graduated level of risk, a kind of puzzle that only the most competent players would be able to solve.

I came up with what I called a Mathematical Tower. It was a kind of large triangular structure, whose rungs not only rotated around the triangle but were increasingly further apart. So to scale the tower, children had to climb around it, but as the rungs were further and further apart too, they also had to stretch and be increasingly competent climbers.

### **Playground four.**

On playground four I collaborated with a playground design PhD student, Zoe Akamiotaki, to explore the impact of Nicholson's Theory of Loose Parts on the children's activity.

For those who are not familiar, Nicholson's Theory proposes that "in any environment, both the degree of inventiveness and creativity, and the possibility of discovery, are directly proportional to

the number and kind of variables (loose parts) in it". What this meant was that the modification this time involved giving children graduated access to a selection of different loose parts, in the belief that they would stimulate spontaneous locomotor play activity.

Over our three hour experimental run we made a variety of different everyday objects - cloth, shells, boxes, string, washing up bowls, bin bags, inflated shapes, short canes, coloured balls and so on, randomly available to the children by placing them in a particular area of the playsite at intervals of 20 minutes or so.

#### **Playground five.**

During my preliminary visits to the fifth playground, I had observed that a sizeable group of the children who went there appeared disconnected from the physical environment. They just hung around and didn't play.

From the perspective of a potential modification, I reasoned that given that these children were predominantly of African descent, perhaps they were unconsciously looking for a particular cultural cue from the play environment before they could give themselves permission to engage, and it was not offering one. I was concerned that the playground might be acting more as a psychological blocker to their play, than a facilitator of it because of this, and that that might explain their lack of connection with it. My plan was simple, modify the playground with something these children might find psychically familiar, and they would not feel alienated by the rest of the space.

It is well known, as Stevens and Price confirm, that environments that are perceived as rejecting, un-nurturing and alienating by children, do badly at alleviating their archetypal problems and may assist in the creation of psychiatric illnesses instead.

The problem was, what form should the modification take? Discussing this with the playworkers and parents, I wondered if we could create what Sturrock (2007) terms an 'iconic lure' - something that attracts children's attention, something they intuitively recognised - and which hopefully speaks to their deeper archetypal needs, offering them a psychological door, a portal, that makes it possible for them see the playground in a different light, as a result.

The form the modification eventually took was again informed by Sturrock's (2007) terminology, using his notion of a 'counter cue'. This meant providing something radically different to the swings, towers and platforms already present in the environment, and which weren't engaging the children. It needed to be something which felt so personal and powerful to them that it might have the effect of unconsciously sacralizing the play space for them, ie endowing it with sacred or spiritual value. The intended affect being one of belonging to the playground rather than being alienated by it.

The combinations of counter cue/iconic lure that initially came to mind were 'western' religious icons, like the Virgin Mary and the Green Man. And although I knew they weren't appropriate, they did lead me in a direction that was productive. Eventually I found the cue/lure I was looking for on the internet. It was an image of an African Head, which had been discovered in Mexico and made around 3000BC by the Olmecs. As well as being ancient, which meant that it might have evolutionary resonance for the children, perhaps having been talked about as a part of family folklore, it was also huge, and it would be its dominating effect on that part of the playground it eventually occupied, that would give it its sacralizing potential.

A strategy and budget were developed to involve a sculptor to create something that captured the essence of the Head, but which at the same time would be a playground modification.

Since early 2008, Emmanuel Jegede the world famous Nigerian sculptor and wood carver, has been engaged at playground five, in creating artistic modifications with the group of children I mentioned, and developing his interpretation of that African Head into a play structure that will hopefully trigger feelings of worth and belonging in the children who attend this playground.

The final form of the project was in fact two heads, one an African representation and the other a European representation. Both heads were joined together by a brightly coloured carved climbing frame.

Already girls who attend the playground have shown some ownership of the sculpture, using it as a meeting place.

### **Scoring.**

I visited each playground several times prior to modification. Each of the modifications was placed in a relative dead area on each of the playgrounds. Activity was filmed in one minute samples, at fifteen minute intervals over a period of several hours, before and after each modification, and changes in locomotor play monitored and calculated. Locomotor play was defined as movement with playful intent, and this meant considering what happened prior to or subsequent to a potential locomotor play routine.

### **Discussion.**

Obviously each of these modifications has met with quite different reactions from the children, and I want briefly to look at each one of them individually to try to identify some of the essence of what we did. All too often playspaces materialise without any coherent clue as to why, in that way.

Neophilic modification has one main purpose. By refreshing the intensity and variety of the available novelty on a playground and consequently stimulating activity and playful invention and creativity, it acts to stimulate neural growth and adapt the circuits and mechanisms which play has evolved, so that they are more variable and facilitate greater combinatorial flexibility/potential. This can then result in the children being more able to undertake more complex challenges and be better equipped to adapt to change, whatever its source.

### **Playground one.**

**The rope bridge** as well as offering balancing and climbing, was designed to enable high-speed entrance and exit from it. This allowed the children to experience thrill - a combination of fear and elation - during the locomotor and fantasy games it facilitated.

### **Playground two.**

**The runways and stepping stones** addressed the need for calibration and coordination. Chase games are a prolific feature of any playspace, but components that add evasive potential and the opportunity for the display of accuracy, fearlessness, speed and agility are particularly desirable in them, like the bridge, as well as being literally what they are, these modifications also provided metaphors for moving from the familiar to the unknown, from excitement to anxiety and to experiences of "other levelness".

### **Playground three.**

**The mathematical tower**, by providing a difficult, perpendicular climb. was an attempt to satisfy the risk component the playworkers and children had asked for. To add to its neophilic capacity, it was intended to further test its users by an added built-in difficulty of having to revolve and

stretch. In this sense it was mimicking the challenges normally undertaken by climbers or Parkours and required computational and calibrational judgement to achieve success.

#### **Playground four.**

**The Loose Parts exercise**, by offering random variety, provided the children with the opportunity to create single or more complex gestalten. Props like those provided here, offer far greater potential for flexible and creative narratives than do fixed playground components like towers, nets and platforms. Playing with props relies on the state of the moment, on spontaneity, for the manifestations that unfold. Certainly more fixed features provide a predicted backdrop, which is always useful, but the real fun and creativity is in the imagination, in the head and in the imaginal space between players or player and backdrop.

Unlike backdrops though, loose parts are infinite and so are their flexible combinations and applications. An issue I have found with some adventure and other playgrounds at the moment is that this element of malleability and flexibility via props is tending to disappear, often being replaced by the backdrop alone. This creates an incomplete playspace - like providing food with nutrition, but no flavour.

#### **Playground five.**

**The Head project** by providing a focus for the emotional and artistic heritage of the playground's users, and a visible and tangible bridge to that heritage, will help to give the children at King Henry's a feeling of belonging, identity and place. It is also a legitimate piece of the playground environment on which to play, meet, talk and generate games that are stimulated by the impact of the two sculpted heads on the children's collective and individual imaginations.

The Head Project is a true experiment. It asks "Is it possible to use modification to reconnect disconnected children to their play?" We will have to wait and see if it does. But, perhaps equally to do with the personality of the sculptor Emmanuel Jegede, as the sculpture he has created, the signs are promising. Certainly some of the playground's children felt disenfranchised, and certainly he provided both an artistic and a cultural interface through which that could be articulated and explored. He engaged the children in conversation and in the project itself. He worked at rebuilding their dented self-esteem, sometimes using the device of shame, but also encouragement. He certainly provided them with a role model, but his was an active, productive, comprehensible role. He made things, he didn't just talk about making them, and they have joined in. The project has certainly tapped into the metaphysical, spiritual component of our nature. Sacrilisation is not a new phenomenon. The potency of sacred spaces, and the feelings of peace and internal tranquillity they can engender, is acknowledged the world over, whether it comes from stained glass or sacred groves. Many children need this to help still the nightmares they have experienced, so I think it is an appropriate device to use in a playwork context. Whether it works in the longer term, or whether the neophilic focus it provides become a focus for negative emotions, we will find out. Either outcome will teach us much about the impact of what we do.

Part of my playwork rationale for this final modification is described by Chawla, (2002). Quoting what she calls Schleiermacher's astounding phrase, that "each person contains a minimum of everyone else", she reminds us of the hermeneutic tradition that makes it both plausible and legitimate for playworkers to represent children's needs, without necessarily consulting with them, by "imaginatively projecting themselves into another and sympathetically knowing another".

**The modification project** has taught me a lot about the difficulties of undertaking authentic playwork research. There are lots of moans - horrendous variables, different playworkers' regimes, local demographics, the nature of the play environment itself - and then there are the others - the

weather, school holidays, loss of materials, lack of daylight, variable opening hours, the availability of sites, synchronisation between everyone involved, the condition and availability of tools, and with the Head project - physical attacks, dangerously high winds and explosions which all added to the complexity of the project - all this to contend with and only working four days a month to do the job.

And there were other difficulties to do with describing what I saw - my descriptive and observational powers felt both slow and deficient, the children were curious, I felt intrusive, that I was breaking trust (not that the children seemed to mind), I had to constantly remind myself that I mustn't play, and with the loose parts modification, I was frustrated at not being able to capture every 3D event that was occurring whilst knowing I would probably never see it again.

But there were visible trends that stood out, and these confirmed for me that playwork applications can fly, they do work, and that being that immersed in the playground dynamic does reveal remarkable insights into the nature of children's interactions with one another when at play. For example Loose Parts Theory does work; novelty/neophilic foci do create activity; children love bridges; real risk is preferred, and physical challenge is fun.

### **Results.**

My original task was to discover what if any, was the relationship between play environment modification and children's locomotor play levels. My chosen indicator of the impact of neophilic modification being a change in the locomotor play activity levels shown by the children.

The results of the study are as follows:

<b>Year</b>	<b>Playground</b>	<b>Modification</b>	<b>Activity rise from base level</b>
2005	Toffee Park	Rope Bridge	29%
2005 - 2006	Three Corners	Runways/Stepping Stones	53%
2006 - 2008	Lumpy Hill	Mathematical Tower	15%
2007 - 2008	Timbuktu	Loose Parts Experiment	56%
2006 - 2008	King Henry's	HEAD Project	37%

Whilst of course this is a relatively small-scale project, the data coming from the project provides useful indicators both of the neophilic potential of different modifications, and also the impact of different modifications in different locations. (Remembering of course, that individual playground topography, children's curiosity levels and the playworkers' involvement may all have an impact.) The latter finding should certainly give playworkers a good reason for going for new and experimental modifications as well as tried and tested formulae.

The real revelations though, lay in the video footage I used to calculate the changes in locomotor activity. As is often the case in ethological type studies, it's what you miss during live observation but notice on film later that is most fascinating.

For as well as providing their own focus for locomotor activity, the modifications also provided

a focus for the surrounding area, and it seemed that a play law of "Activity Begets Activity" was continually being triggered. I saw this in the loose parts experiment. When a small, but intensely immersed game kicked off, the whole playground seemed to go into activity mode. It was as if we had spent the whole morning stoking up play potential with loose parts, and only when a particular loose part facilitated enough immersion to give the other children 'permission' to do the same, was the real play dynamic potential of the modification revealed. This phenomenon was manifested on other playgrounds too. The use of vocalisations for example, also stimulated increased activity on the stepping-stones.

It was as if a kind of critical mass was reached - when enough children were running the stepping stones or climbing the tower; or when we put out a prop that translated immediately into an obvious cue - that large games fired off, and children of all ages, both genders and several cultures came together in a game which seemed to rely more on mind reading or a complex cause and effect, than on a single chosen narrative.

Some of what I only noticed on film was fascinatingly odd or unusual. Sylva (1977) writes of play as the non-literal use of animate and inanimate objects. It is one aspect, she says, along with combinatorial flexibility and self-initiation that is continuous between the play of humans and other species. Miller (1973) refers to galumphing, odd movement, manifested by kittens, monkeys and others that also denote playing.

In the video footage, it was evidence of these odd movements, what some investigators meant when they originally referred to play, that was particularly fascinating. For example, on one playground a child did spontaneous marching movements, a group had an exaggerated argument, a child bowed to no-one, and a boy engaged in a lone kick boxing session with a rope, plus a mad jumping girl and a dobbing group.

Perhaps one reason for missing these things was the speed at which they happened. Several people have remarked for example on the difficulty of separating one playtype from another when observing live play and I have huge sympathy. Most of what was interesting would have remained unseen without video. On several occasions, interesting behaviours only had the briefest of life-spans.

Watching footage of the children playing, I had the distinct feeling that I was witnessing a seamless dance, during which children were not only engaged in movements of their own, but were initiating movements in others as well, that went:

Receive proto movement - goto full blown playtype - send proto movement

And this was happening to them all, all the time, during these active periods. Everything appeared to rely on cause and effect. It looked like group mind reading or evidence of morphic resonance.

Certainly, the original proposition that neophilic modification increases activity levels was sound, and probably so too were the others regarding physical and mental health, obesity, brain growth, and improvements in social capital and community cohesion.

But as a playworker, what I was particularly grateful for, was the confirmation of phenomena I thought I had seen in the past, and which I can remember saying to others, "You should have seen that child doing a, b or c, it made the hairs on the back of my neck stand up".

However, that some of the play phenomena still defy definition or description by me, doesn't stop me feeling that I was watching something that is at least as fascinating and important as black holes and other galactic phenomena.

### **Conclusions?**

Whilst this experiment evolved from its original design to incorporate a much wider agenda, it has provided useful, perhaps even important data regarding the validity and efficacy of adventure playgrounds in Islington, or anywhere else for that matter.

For provision, whether staffed or not, to do its job, it has to be designed and maintained to do a job. The job of play provision, as well as to entertain and engage children in fun, is to challenge and engage them as they develop physically and psychologically.

So for play provision to do its job of encouraging children and young people gradually and continuously to increase their:

- Flexibility
- Adaptability
- Problem-solving capability
- Communication skills
- Social skills
- and Co-ordination

they need regular access to new and interesting experiences that test and absorb them. In the past they ranged the local environment and discovered them, now play spaces attempt to fill the void. That is why modification is so vital, it keeps play spaces - some of which still only offer much the same experiences now in 2008 as they did a decade ago - vibrant and interesting to children who need such environments to learn how to adapt to a fast changing world.

### **Thanks.**

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Grateful thanks go to the playworkers and volunteers at the different playground who helped me and supported the idea. To Andrea, Michael and Chay at Toffee Park; Vincent and Wendy at Three Corners; Dawn, Chay and Kerry at Lumpy Hill, Claudette and Darren at Timbuktu and finally, Tara, Jane, Delyia and Beverly at King Henry's.

I am also deeply indebted to the children, management committees and parents at each playground for allowing this experiment to proceed. I hope they will find it interesting, informative and useful.

Although we explored our visions of this project separately, I am particularly grateful to my co-worker Max Mueller. Max made budgets appear to purchase tools and video equipment, he learnt to weld, and re-taught me how to use power tools. He also undertook some of the more precarious work at height at Lumpy Hill, and conducted initial research and development for what eventually became the Loose Parts Experiment at Timbuktu. I am very grateful for his help.

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