List of titles published or in preparation

1. Education in the Arab region viewed from the 1970 Marrakesh Conference
2. Agriculture and general education
3. Teachers and educational policy
4. *Comparative study of secondary school building costs
5. Literacy for working: functional literacy in rural Tanzania
6. *Rights and responsibilities of youth (also published in Russian)
7. Growth and change: perspectives of education in Asia
8. Sports facilities for schools in developing countries
9. Possibilities and limitations of functional literacy: the Iranian experiment
10. Functional literacy in Mali: training for development
11. *Anthropology and language science in educational development
12. Towards a conceptual model of life-long education
13. Curriculum planning and some current health problems
14. ALSED Directory of specialists and research institutions
15. *MOBRAL — The Brazilian Adult Literacy Experiment
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20. *The operational seminar: a pioneering method of training for development
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24. *Group techniques in education
25. Education in Africa in the light of the Lagos Conference (1976) (also published in Arabic)
26. Buildings for school and community use: five case studies
27. *The education of migrant workers and their families (also published in Arabic)
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31. Methods and techniques in post-secondary education
32. National languages and teacher training in Africa
33. *Educational systems regulation
34. *The child and play
35. Non-formal education and education policy in Ghana and Senegal
36. Education in the Arab States in the light of the 1977 Abu Dhabi Conference
37. The child and his family — Selected readings in home economics
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39. Self-management in educational systems
40. *Impact of educational television on young children
41. *World problems in the classroom

In the field of education, Unesco also publishes the following periodicals:

Prospects. Quarterly Review of Education
Adult Education — Information Notes
Educational Documentation and Information:
Bulletin of the International Bureau of Education
The child and play:
Theoretical approaches
and teaching applications
Preface

In the programme adopted by the Unesco General Conference at its nineteenth session held in Nairobi in 1976, the Secretariat set itself the task of encouraging the use of appropriate technologies and simple and inexpensive forms of organization of human material resources with a view to educational development. With this aim in mind, case studies on the utilization of national cultural traditions in devising and developing environment-related teaching methods were carried out. This is the framework within which the present study on the use of play as a pedagogical technique in different socio-cultural contexts was carried out. Games can provide teaching praxis with a means of stimulating creativity long after nursery school, and modern psychology has shown how great an influence play behaviour and play objects, obviously conditioned by the cultural and social environment, can have on the development of the personality.

This report is primarily intended for teachers and teacher-trainers; it may also be found useful by ethnologists, sociologists and psychologists who are interested in child behaviour. It is divided into three main sections: an analysis of play activities from an anthropological, sociological and pedagogical point of view, case studies conducted in a number of Member States over the past few years, and, finally, proposed working instruments and models for those who might wish to use in their teaching, methods and materials based on the games or toys of their particular environment. A brief bibliography completes the study.

The Secretariat requested Juliette Raabe, a specialist in popular cultures who has written several works on games and teaches at the Centre international d'études pédagogiques (France), to compile this study and write the first chapter. The second chapter brings together studies, mostly unpublished, carried out in various States at the request of Unesco — in the Ivory Coast by Chantal Lombard; in the Lao People's Democratic Republic by Martine Mauriars-Bousquet; in Peru by C. Izaguirre — as well as accounts of experiments carried out in Italy by J.B. Belgrano, in France by the Musée des enfants (Paris), and in India by the National Council for Educational Research and Training (NCERT, New Delhi). The third chapter comprises methodological instruments and teaching cards taken from works by Ms. Winnykamen, a psychologist, R. Dogbeh and S. N'Diaye, Unesco experts who have conducted substantial field research, and A. Popova. The study would not have been complete without the valuable contribution of Professor Yahaya S. Toureh, the author of a guide on the use of play activities and materials in teaching. Finally, the Secretariat wishes to express its gratitude to the Bernard Van Leer Foundation for its kindness in making its files available for consultation.

Although Unesco felt it would be useful to compile the findings of work and research by these various specialists in the present publication, the opinions expressed therein are the sole responsibility of the authors and do not necessarily reflect the views of Unesco. This also applies to the terms used and the presentation of facts which should on no account be interpreted as being the Organization's position as to the legal status of any country or territory or of its authorities, or with regard to its frontiers.
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THEORETICAL APPROACHES

Throughout the world children play, and this activity is such an important part of their lives that one is inclined to see it as the raison d'être of childhood. And indeed, play is vital; it conditions the harmonious physical, intellectual and affective development of a child. A child who does not play is a sick child. A child who is prevented from playing will fall ill, physically and mentally. War and poverty, which compel an individual to concentrate solely on survival and consequently make it difficult or even impossible for him to indulge in play, ultimately have a crippling effect on the human personality.

Although the development of the child and children’s games and the overall need for play can be seen as a universal fact, play activities are none the less profoundly rooted in each individual people, whose cultural identity can be discerned through the games and toys it has invented. There is an infinite variety of play activities and playthings, all bearing the stamp of their specific ethnic and social origin. Conditioned by dwelling or subsistence patterns, curtailed or fostered by family, political and religious institutions, functioning as a veritable institution in their own right, children’s games, with their traditions and rules, are truly a mirror of society.

Games and their history provide insights not only into societies as they are today, but into the past history of peoples as well. Each ethnic group’s cultural capital is made up largely of its play heritage, which is enhanced by the contributions of successive generations but is also sometimes in danger of being distorted or even of dying out (see p. 34).

Play is furthermore one of the most important of all educational activities and deserves acknowledgement of its rightful place in formal schooling, beyond the nursery school to which it is too often confined. For play provides the teacher not only with a way of improving his knowledge of the child, but also with a means of renewing his teaching methods. But bringing play into the classroom raises a great many problems, particularly in view of the fact that there have so far been relatively few studies on play, and those in existence have not come up with any general theory offering a response to the various questions involved.

A patch of sand and a handful of pebbles are all that are needed to bridge the gap between children of Africa and children of Europe, cutting across the frontiers of time and space.

Figure 1: Playing at chucks, as illustrated by this French seventeenth century engraving, reproduced from an anthology of Jeux et plaisirs de l'enfance by Jacques and Claudine Bousquet-Stella. (Re-edition Dover book)

Figure 2: Game of atté played by small boys from the Ivory Coast. (Photo: C. Lombard/Unesco)
What is play?

There are without a doubt patterns of behaviour which cannot be traced back to mere survival activities such as procuring food, reproduction, defence, etc., and objects which are the products of human industry and yet cannot be classified under one or other of the usual headings such as weapons, tools, clothing, adornment or worship. But there is no way of telling categorically that a particular form of behaviour is in fact a game, or a particular object a toy. There is no objective evidence to prove such a fact with any certainty, and it remains a field in which there is always some degree of subjectiveness in the opinions expressed. The same object—a hammer or a saw for instance—will be a tool in the hands of a carpenter and a toy for the child who borrows it from his father or the handyman who uses it in his spare time. In the circumstances, it is understandable that researchers in the different disciplines have come up with different and sometimes conflicting theories.

Animals at play

Several specialists in animal behaviour have attempted to throw light on the problem of play by observing animals. As far back as the beginning of the century, Groos advanced his theory of play as 'practice'. In his opinion, for young human beings and young animals alike, play was an instinctive process of acquiring forms of behaviour relevant to situations that the adult would have to face up to in later life.

More recently, Konrad Lorenz, analysing the behaviour of kittens, wrote:

'How do these movements of play differ from those of real earnest? In their form, even the most practised eye may fail to detect a difference, but nevertheless there is one. In these games, composed as they are of the movements of catching a prey, fighting a fellow cat and repelling a foe, serious injury is never done to the playmate acting one of these parts. The social inhibition against real biting or deep scratching is fully enforced during play, while, in a case of real earnest, it is obliterated by the emotion evoking the particular series of movements. In serious situations, the animal is in a particular psychological state which brings with it the readiness for a particular way of behaving—and for this way only. It is typical of play, that, during it, highly specific behaviour is incited without the corresponding emotional state. The relationship of all play to play-acting lies in the fact that the player 'pretends' to be obsessed with an emotion which he does not really feel. Play may therefore be considered as a sort of fictional practice for instinctive hunting and defence activities.

Definition and classification

While these attempts were being made to grasp the specific nature of play through the observation of particular types of behaviour, various other authors, by contrast, sought to define the problem of play in terms of a universally applicable theory. One of the most important, in that his influence is still felt today, is the French author Roger Caillois. His work *Les jeux et les hommes* was published just twenty years ago and was an attempt to produce a universal definition and classification of games.

Proceeding from the definitions proposed by the Dutchman Huizinga, Caillois set forth the characteristics of games as distinct from other human occupations; according to his definition, the game 'is an activity which is:

1. *free*, in which the player is under no compulsion to take part, failing which the game instantly loses its appeal and pleasurable nature;
2. *separate*, taking place within precise, pre-determined space and time limits;
3. *uncertain*, having no foreseeable progression or result, some latitude for resourcefulness being necessarily left to the player;
4. *unproductive*, not giving rise to material gains or new elements of any kind and, except for items of property which may change hands within the group of players, leading to exactly the same situation at the end of the game as existed at the beginning;
5. *subject to certain rules or conventions superseding ordinary laws and temporarily substituting for them a new code which alone counts*;
6. *fictional*, the player being specifically aware that he is experiencing a substitute reality or even a complete lack of reality distinct from everyday life.'

Thus defined, games can be divided into four main categories:

1) games involving an idea of *competition*, of challenge directed as the case may be at one's opponent or oneself, in a situation presupposing equal chances at the outset;
2) games based on *chance*, a category differing fundamentally from the previous one;
3) games of *mime*, dramatic or fictional games, in which the player pretends to be something different from what he really is; and

---

4. The game is a voluntary action or activity, performed within certain fixed time and space limits according to rules freely accepted but binding and an end in themselves; bound up with feelings of tension and joy and the awareness of its being different from real life. In *Homo ludens: a study of the play-element in culture* (translated from Dutch), Boston, Beacon Press, 1955.
4) Finally, games which are based on a desire to induce vertigo and which are an attempt to throw one's perceptual capacity off balance for the space of a second and deliberately seek a sort of voluptuous sensation of panic.

Psychological functions of play

Apart from this attempt to describe games as objects, there are the various psychological approaches seeking to apprehend the role of the game in the development of the individual psyche.

For the Englishman Henry Bett, games are an involuntary resurgence of vital instincts which have lost their significance today; for others, play is a functional relaxation activity or, again, a way of using up excess energy that cannot, or can no longer, be absorbed by survival activities.

In this field, two major theories prevail in current research. Genetic psychology, founded by Jean Piaget, sees play both as the expression of and the prerequisite for a child's development. A certain form of play is indissolubly linked with each stage of development, and although the rate or age at which various games appear may vary from one society to another or one individual to another, the order in which they appear is always the same. Play is a yardstick of a child's mental development.

Figure 4: Buck, buck, played by Dogon children, is a combination of competition and vertigo. (Source: Grisule, Jeux Dogons, p. 140)

These theories, taken up by J. Château and H. Wallon, are all the more significant in that they serve as a basis for an entirely new approach to teaching, and as such will be repeatedly referred to in this study (p. 8 et seq.; p. 45 et seq.).

From the viewpoint of Freudian psychoanalytical theory, 'play can be correlated to the child's other fantasy activities, especially dreams.' The essential function of play can thus be seen as the reduction of tensions arising from the inability to fulfil one's desires, but unlike dreams, play is based on a permanent compromise between drives and rules, between fantasy and real life.

According to J. Henriot, play can therefore be divided into three distinct stages. i) Carried away by his game, the player seems to be taken in by the illusion. He transforms the world. The chair is no longer a chair, but a motor car. The doll is really asleep. The stick is not a piece of wood, but a sword. ii) In fact, the player remains lucid and is never taken in. He knows that the chair is only a chair and that the doll is not really alive. iii) And yet some degree of illusion is necessary, for if one remains outside it all, one is not playing — there is the risk of not knowing what game is being played, nor even whether it is a game.

It goes without saying that in so far as play has a critical role in the development of the ego and of the child's intelligence, it serves an essential function for learning processes. More will be said about this function, which contributes to the development of the child both as an individual and as an active member of society (see p. 18 et seq.).

Play and societies

The universal character of play in the mental development of an individual is subject, as we have seen, to variations from one period of time, culture or type of society to another. Distinct, therefore, from the attempts to evolve a general theory of the kind mentioned above, is a whole series of studies seeking to place play in its socio-historical context.

One need only consider the linguistic aspect to discover significant differences in the very concept of play. Etymologically speaking, for example, the term 'ludic' (French: ludique, Spanish: ludico, etc.) and modern derivations such as the French ludothèque (play-centre) come from the Latin ludus, which meant at the one time juvenile amusement, game, joke, and school. It may be compared with the development of the Greek word schola, which originally meant leisure before it came to mean 'leisure time devoted to learning' and, ultimately, 'school'. Thus is ancient society the contrast between work and leisure or play was not nearly as clear-cut as in industrial societies, which from the eighteenth century onwards placed emphasis on productive work to the detriment of any occupation that was thought to be unproductive. Another interesting difference is the existence of one or two distinct terms to denote what in French, German and Russian is denoted by a single term, respectively jeu, Spiel and игра. In English for example there is a clear distinction between unorganized and on occasion rough-and-tumble 'play', and 'games' which are subject to strict rules. A systematic study of this kind, not yet attempted, would provide interesting data for an analysis of the interactions between play and culture. For from the ethnological angle, play furnishes as

1. R. Calllois, op. cit. p. 67.
8. Ibid., p. 87.
9. Ibid., p. 88.
much evidence of a people's culture as, for example, table manners or rites, but there has so far been far too little research into this aspect of play (see p. 14 et seq.).

A theorist like Huizinga\(^1\) goes so far as to consider play the very foundation of culture, in so far as it is the only form of behaviour that cannot be traced back to the basic survival instinct. He postulates that play underlies all social institutions, political power, war or commerce, and points out the element of play in all of them. In his view, play is also at the root of art, and it is true that play has a strong element of creative activity and that similarities do exist, although play, unlike art, is not intended to last (see p. 42 et seq.).

In contrast to Huizinga, the Swede Yrjö Hirn\(^2\) sees games as the final stage in a process of decaying social institutions. He sees proof of his theory in the numerous rites that have disappeared, of which games are a degenerate survival.

There can be no doubt, either, that while play is deeply ingrained in a people's cultural traditions, it also evolves with society, and history has shown that it is conditioned by economic and political systems. Thus the simple toy made out of whatever happened to hand at the time, often by the child himself, evidence of which can still be found in the recent past of Western societies (figure 1), has been supplanted in our industrial age by the toy as a commercial product and a marketable item, a source of substantial profit.

Teaching and play

For the same reasons, depending on the types of society, play is or is not made an integral part of education; it is accepted and encouraged or alternatively rejected as an obstacle to the citizen's productive capacity.

Whatever a society's attitude to children's games may be, they none the less play an essential role in education. It may even be said that play is an education in itself outside the school. Educators concerned about reform could not turn a blind eye to the enormous possibilities afforded by play activities. Even in antiquity and during the Renaissance, philosophers stressed the importance of play. And yet in the European countries undergoing the process of industrialization, play was regarded as a useless and even harmful occupation, and it was not until the early research of Claparède in 1916\(^3\) that play activities were restored to their rightful place in the eyes of the more progressively-minded educators. In his research on teaching the mentally handicapped, Dr. Ovide Decroly\(^4\) was to draw attention to the practical applications of what was in fact a tool for teaching. There followed active teaching methods based on Célestin Freinet's research\(^5\) promoting a form of education pervaded by the spirit of play, that is to say enthusiasm, creativity, discovery. The fact remains that play cannot be a total substitute for schoolwork, and teachers need to be well-informed and cautious on this subject. As J. Château has said, the child himself often perceives play as a childish activity in contrast to serious adult occupations and will occasionally demand more conventional work to do, requiring a conscious and sustained effort on his part.

PSYCHOLOGICAL APPROACHES

In studying the development of play activities from birth to adolescence, reference will be made, on the one hand, to psychoanalytical theory, explaining play through the need to provide relief from drives and assigning it a primary role in the development of the ego; and on the other, to child psychologists who, since Piaget's genetic psychology\(^6\), have used play as a gauge of the maturation process and mental and affective development. These two theories are based on the postulate of the universal nature of mankind which would explain that the stages of development always follow one another in the same order; this concept of order is important, because it is universally applicable, whereas the ages at which the stages occur are unimportant, since they may vary not only from one culture to another but also from individual to individual within the same culture\(^7\). It will be seen, however, that the socio-economic context in which a child lives can have a considerable influence on the relative importance of these different stages.

Early childhood

For a newborn baby and until the age of 3 months, play is confined to rocking or swaying movements reproducing the sensations experienced in the mother's womb. In societies in which infants are carried around virtually all the time, rocking movements are not really a game, for they correspond to the normal and permanent state of the child. At this stage, the child sees himself as an indissociable whole and has not yet learnt to make the distinction between his own body and the outside world. The African child, for example, who is carried around by his mother and fed on demand is not systematically given a dummy, as is typical of the first few months in the life of a European child. Sucking gives the child his first inkling of the possible fragmentation of his body, and when the sucked object is not his finger, he is confronted with his first experience of what is in fact a pre-play object (initially through oral investigation only). Again it is in industrial societies, where babies are separated from their mothers at a very early age, that the mother will present her child with a toy that represents and replaces her and can be manipulated by the baby. This is the role of the rattle, which makes its appearance in the lives of children in industrial societies much earlier than elsewhere.

1. J. Huizinga, op. cit.
2. See Bibliography. A French translation of the study was published under the title Les Jeux d'enfants; Paris, Stock, 1926.
7. See F. Winnikamnen, Study of psychological activities of children at play which can be used for educational purposes, and below, p. 45-7.
The distress caused by the mother’s disappearance, followed by the pleasure of seeing her reappear — a pleasure which will soon be coupled with the apprehension of her going away again — is, with babies separated from their mothers at an early age, the source of numerous disorders and imbalances in psychological development. It is evident in the game of showing and hiding, one of the first games to be played by a child. It has a marked symbolic quality,

![Figure 5: A rattle is often a child's first toy. As soon as the child begins to react to the world around him, his parents will make or buy an object to amuse him and stimulate his first movements. The shape of rattles and the materials of which they are made vary according to local tradition. (Photo: C. Lombard)](image)

that of desire and taboo. In a celebrated passage in his work Beyond the pleasure principle, Freud describes and analyses ‘the cotton reel game’, his 18-month old grandson’s favourite game. The child had a wooden cotton reel with string tied round it, and would play the same, extremely curious game over and over again. He would throw the reel out of his cot, make it roll out of sight, and then quickly make it reappear by pulling on the string. The reappearance of the cotton reel always seemed to give him immense satisfaction, and yet he would promptly make it disappear by throwing it out once more. Freud pointed out the twofold process in the game, controlling the sorrow caused by the mother’s absence by representing at will her departure and her subsequent return in an indissociable manner.

Thus from the second year onwards, there is a substantial element of symbolization in a child’s games, and it is at about this age that he begins to acquire mastery of speech. However, this first stage in his life, up to the age of three, seems more to be the age of functional games, sensorimotor games, which he enjoys for the actual function: movements with different parts of the body, rhythmic or balancing motions, vocalizations, shouting, humming, mumbling ... At this age, a child will also spend a lot of time looking at pictures or in front of a mirror which will gradually arouse self-awareness.

Primary school years

While this accession to self-identity which passes through the discovery of others does not efface the sensorimotor games of early childhood, it becomes the predominant feature in what authors term variously imitative, fictional or make-believe games. These games become all-important after the age of two or three. Children’s play can be seen as a dialectical balance between successive stages in identity-building and, at each stage, challenges to that identity, whence its fundamental role in the development of the ego¹.

At this age, the child constantly plays at make-believe; one minute he is an animal, the shopkeeper or the doctor, the next he is himself but in a make-believe situation, like the little girl who said she played at being asleep or crying. Thus a child does not only identify himself with a cherished model, his mother for example, for he will also play at being himself or someone unpleasant who will punish or frighten him. Dolls play an important part in this process of identification, and rare indeed are the cultures in which there are none. For a doll is both an object and the other — mother, brother or child — as is illustrated by this composition, written by a child in the first grade of a Bouaké secondary school²:

‘When I was a little girl, I liked playing with dolls best of all. I liked it because I admired my mother who, every evening, used to wash my brother, dress him, feed him and put him on her back. I wanted to do the same. When my father came back from a journey, he bought me a big doll with long hair. Every day, instead of going to school, I went to see all the tailors in town, and they always gave me scraps of cloth. I joined the scraps together and when the piece was big enough I cut out a dress for my doll with a rusty blade which was in the sewing box. Everywhere I went, I had my doll on my back and the box in my arms. I had a scarf that I used to tie around my chest in the shape of a breast. I even used to say that the baby was crying and I pretended to feed him. My mother, who took good care of children, had given me a little case in which I put my doll’s clothes; I spent all my time washing and sewing her clothes. The hair was always coming out through being pulled. My friends who didn’t have a doll were jealous of mine. They always tried to beat me on the way to school. One day, when my mother had sent me on an errand, I left my doll with my friends. When I came back, I saw that the doll’s head had disappeared. I cried and cried. My mother bought me another doll, but I didn’t like it as much as the first.’

As emerges clearly from the composition quoted above, the doll is both the little girl’s other self and her child, by means of which she prepares from the time she is very small for her future role as a mother.

![Figure 7: Imitative games are of fundamental importance from the age of three onwards. Practically everywhere, little girls use dolls as partners in their make-believe games. The picture shows a doll made out of odd scraps of material by a little six-year old Afghan girl. The pantaloons, tunic and veil are faithfully copied from real life. (Photo G. Payen)](image)

Although at this age there is already a clear-cut distinction between boys' and girls' games, all the representational games involving mimicry or play-acting are enjoyed by both, and they develop a taste for drawing and modelling.

It is generally agreed that children are initiated into group life from the age of five or six. Before the age of five, 'although they never really play together, they do not like playing alone, and a child will seldom be seen playing in the sandpit all by himself'. But after the age of five, a child will prefer group activities. Integrating into the group is of course a gradual process, and from being merely a passive onlooker, the child will have to go through a form of apprenticeship before being allowed to become a fully-fledged member of the group. J. Château writes concerning the group: 'It is in no way an established group like a scout troop, but one with ever-changing boundaries. It has a centre and a periphery. On the outskirts there is a fluctuating fringe zone of smaller children, some of them only being admitted into the group when it is a matter of not leaving anybody out, to make up the numbers; these children constitute the outermost limit of the group'.

At about this age, which corresponds to the child's first years at primary school, and no doubt connected with this discovery of group life, games of pluck enable a child to assert his strength or bravery, his position as a group member or his qualities of leadership. Feats of this kind (difficult balancing tricks, resisting pain, etc.) can be very risky, but they seem to have a positive psychological function and should not be forbidden unless equally meaningful, if less dangerous, alternatives are proposed.

Pre-adolescence

During the following period, symbolic games, or at least those involving identification with an actual family model (mother or father) or a social model (hunter, schoolmistress, chief ...) tend to fade into the background. But fictional games, in which imagination plays a considerable part, continue to be extremely popular until the age of about twelve: pirates, cowboys and Indians, spacemen, film stars for girls, etc.

At the same time, that is to say about the age of ten, children discover so-called procedural games, usually known as 'parlour games'. It is at this age, which Piaget has termed 'hypothetico-deductive', that activities of craftsmanship become increasingly popular (weaving, sewing, do-it-yourself activities) and that children develop a liking for sport; at this stage, the basic compromise between instinctive drives and rules implicit in games gradually gives way to logic and formalization. With the strengthening of the ego, symbolic distortions become less flexible, the imagination wanes and children begin to playacting are enjoyed by both, and they develop a taste for drawing and modelling.

The end of this period coincides with the end of childhood. The transition from one age group to another is a difficult ordeal, which some societies facilitate by assuming responsibility for various initiation rituals. In the Western world, society at large now declines such a function. This no doubt accounts for the particularly distressing situation for young people, when the time comes for their play activities to cease almost entirely, and they are unable to find the support and integration they need, either through verbal communication over which they often do not yet have a perfect command, or in their still developing bodies, or again in the family or social group. This, in Philippe Gutton's view, is what accounts for the fact that young people will often carry through some drastic action at this age (delinquency, suicide) as a result of feeling socially and culturally abandoned.

SOCIIOLOGICAL APPROACHES

Societies and their games

In retracing the basic stages in the psychological development of the child as manifested through his games, one is aware time and again of close dependence on the environment, whichever way one looks at it, the child's play is directly linked to the social context.

The mother's presence or premature absence, the family structure, the living and housing conditions, the environment and means of subsistence all have a direct bearing on play activities, which cannot develop when children live in conditions too unfavourable. 'Play is a luxury, an implies leisure. The hungry do not play', writes Roger Caillolos in the preface of Les jeux et les hommes.

For play cannot occur just anywhere, anytime, or anyhow. It comes about, writes Y.S. Toureh, in an environment which, without being altogether committed, is prepared to provide a dynamic setting that we may call a play context. Such a context is made up of the following components:

- the actual space, qualified by its dimensions and content;
- the individual with his experiences, resources and aspirations;
- pressure from outside; and
- adaptability to change.

Figure 20: Keeping a straight face. This type of game is widely played by children in the second half of their primary schooling (8 to 11 years). Other versions of it are found all over the world. (Photo C. Lombard)

Thus it may be said that for an infant up to the age of one year, his play context is defined spatially by his crib, rush mat, pram or his mother's back, the sides of his cot, the mattress, sheets and blankets, the mother's garment, as well as her body itself and his own.

In other words, the play context is an entity made up of an individual and a specific space which is at once stable and dynamic, thus reflecting the dialectic of life. There are therefore as many different individuals as there are cultures and play contexts, for in the last analysis the play context is but a fragment of socio-cultural space and the place where forces of various origins converge to produce the melting-pot of creativity that is the human personality.

One can therefore speak in terms of a specific play context shaped by society and distinct from the normal round of daily activities, both in the strictly spatial sense and in the temporal sense. According to whether the society he lives in is rural or urban, industrial or still developing, the child will either have the run of a virtually limitless expanse of fields, woodland or bush to roam about in, or will be cooped up in an over-populated, hyper-rationalized environment in which he cannot come by the smallest portion of 'free' space to call his own. In industrial-type countries, even when people are adequately housed, it is not uncommon to find parents labouring under the delusion that they are giving their children a better chance of play by cluttering up their rooms with furniture and complicated, stereotyped objects which mean nothing to the child and result only in inhibiting more or less completely their play capacity. The same phenomenon can be seen in some school playgrounds, which are so congested with recreational equipment that they are simply an extension of the classroom.

From the temporal standpoint, a wide variety of conditions can lead to situations objectively detrimental to play. Some children left entirely to their own devices, incapable of perceiving the different stages in their lives, lose their ability to play, as is also the case with those who are caught up in the vicious circle of day-to-day chores—helping adults in their tasks or pressure of schoolwork—and do not have even a few spare moments a day to themselves.

The attitude of adults to children's play, reflecting ideological patterns, is also decisive. Hostile or indifferent, or again possessive, adults can annihilate the child's play opportunities as much by rejecting them as by appropriating them or turning them to their own advantage. The child is well and truly turned into an object and becomes no more than a toy in the hands of the adults, who use him to act out their own psychological problems or the system of values to which they are attached. As for toys, especially when they are bought, they are part of a whole system of implications inherent in the act of giving. Certain ritualistic practices connected with offering gifts, such as the potlatch formerly practised by the Indians in British Columbia, implicitly brought an idea of challenge into the play structure. Giving Christmas or New Year presents, a common practice in the Western world, is a chance for parents to lavish on their sons or daughters an attention that does not always find expression in day-to-day life. And one could quote numerous examples of unloved or ill-loved children constantly pilled with gifts. In consumer societies, toys are produced industrially and are the source of substantial commercial profit. They are given wide publicity of all kinds, put out on display in trade fairs and glittering shop windows. For the giver, they are a token of wealth and social standing, and they are a source of cruel social inequalities between children in the same school or the same neighbourhood, distorting neighbourly or friendly relations by introducing a spirit of competition based on the commercial value of the toys owned. More serious still is the fact that an industrially-made toy, stereotyped and technically perfected, forfeits much of its value as a plaything. It is a closed object, setting up a barrier against creativity and imagination. In almost all instances, an elementary plaything is preferable, be it a stick or a pebble, which the small player can turn into a musical instrument, a tool, a weapon, a car or a boat, a doll or an animal, as his mood dictates.

Thus, on the one hand, millions of children are expected to make do with the same dolls or cars, mass-produced in a de-personalized universe, while elsewhere there are toys made by the child himself, by an elder brother or sister, a parent or the village craftsman, which remain intrinsically democratic and closely bound up with the family and cultural environment.

Unlike what goes on in the modern, over-stratified societies, in the so-called traditionalist ones of Africa and some countries of America and Asia all forms of play activity are accessible to all social categories. This democratic character can perhaps be accounted for by the fact that play activities are primarily a field open to all, and especially to the children, who imagine, design and make their own toys (often the same ones). For in this type of society there is none of that unfair discrimination that some parents nowadays unfortunately try to force upon the minds of their children, in the name of the respect and admiration they feel to be their due on account of their wealth.

Children in the Western world have scarcely any opportunities left to make their own toys: they live in an environment in which the basic materials are difficult to obtain (and non-existent for town children; even municipal dumps are gradually disappearing). As for tools, there is such an obsession about safety that the children are given only wooden hammers or plastic saws, paltry substitutes for the real thing, and although there are no physical risks involved, they have a disastrous effect on their psychological development.

Such is not the case in Africa, for example, where parents let their children use their tools, or make them scaled-down but perfectly usable tools of their own. In these societies, however, adults 'see to it at all times that any play behaviour out of line with the traditional patterns is repressed. They have no intention of letting the child spend too much time on such "futile occupations" which might keep him back at an age which he must grow out of as soon as possible, for in terms of the unwritten but ever-present socio-educational laws, the young African must grow up as quickly as possible, in order to assume his proper role both in the family and as a full, productive member of the community. It should not, however, be inferred from this that the Western child is better off as regards play. On the contrary, the more a child is showered with toys, the more firmly he becomes entrenched in an
Figure 8: The threatening invasion of toys can turn the Christmas dream into a real nightmare.
(Re-edition Dover Book)
'extra-social' category, the more unimaginative his playing is and the more strained his relationship with adults becomes. One might even say that 'the importance of play activities is in inverse ratio to the role ascribed to them in developing the child's personality. In societies of a traditional type, there is very frequent physical contact between adult and child (both in time and space) and hence play has a less important role, whereas in modern societies (of the European type) the adult's absence leads them to devise games and toys as a substitute for their thoughts, feelings and technological abilities ...'

Games and institutions

Games and societies are so intricately bound up that some theorists have suggested a close interdependence between the principles and rules of games of strategy and socio-economic patterns: for instance, chess, bridge and monopoly are typical of societies based on commerce, while games of the awélé or mancala type correspond to trade by barter. Play is thus directly connected to actual social institutions and not only to housing or subsistence conditions. It was not for nothing that Huizinga saw in games the origin and prefiguration of the various institutions. One need only look at the element of play in physical and intellectual contests and the role they assume, for example, in the choice of leaders (tournaments, verbal 'jousting' in election campaigns, etc.).

Do we not use expressions such as 'the political game'? The close connection between play and police investigations is brought out in the incessant accounts of thousands of true or fictitious criminal cases to be found in novels, films or serials. Financial or stock exchange speculations are also partly a game, not to mention the great money-winning games like bingo, lotteries, sweepstakes, pools or other betting games which, like the tiercé in France, are veritable institutions.

Whereas this type of game seems to be a typical feature of industrial societies, in other parts of the world play has an essential function at times of transition from one age group to the next, in the shape of ordeals or initiation rites, which are often painful or dangerous but have an element of play in them and are an occasion for festivities and community celebrations. Prepared for the ordeals over a period of years by means of make-believe 'games about games', the child grows up in harmony with his environment. Even in societies of an industrial type, in which rituals marking the transition to adolescence or adulthood are obscured and discarded by the body of society, boys and girls spontaneously put themselves to the test in various ways (motorcycle racing, drug-taking...); but these formidable games have lost any ties with the community as a whole, which rejects them, refuses to set any value upon them and does what it can to prevent them without proposing any alternative.

Games of initiation point to the close link between play and the sacred. Roger Cailliois drew attention to the symmetrical and antithetical position of play and the sacred in relation to what is regarded as common-place, and certain similarities between the types of emotional response provoked by one or the other. However it is sometimes difficult to draw the line between them: the ethnologist Lévy-Bruhl writes concerning a practice observed by a traveller in New Guinea: 'thus the game of swinging on a rattan swing fixed to a branch is thought to exert a favourable influence over newly-planted yams. And so when the time comes, everybody - young and old,

Figure 10: In the social function of play, there is a strong element of the sacred, but also of desacralisation, and children can be seen playing games otherwise confined to ritual ceremonies, simply for their own amusement. (Photo: Hoa-Qui)

men and women - is there on a swing', and he adds 'games... are a serious, sacred occupation, compulsory at a given time and forbidden at any other'. But profane and sacred play can coexist within one and the same society, as is the case of the awélé which is still carried out for ritual purposes in many African societies but is also to be found, outside of any ritual temporal or spatial context, as recreational pastime shorn of any imperatives or taboos. Some profane play activities attest to rites which have now disappeared altogether; such is the case of the Voladores of Central America who today go through their acrobatic dances at popular festivals and fairs, but would formerly perform them at sacrificial ceremonies, leaping from the top of a pole to which they were tied by a rope.

Practices of this kind (which we shall come back to in the section on Ethnological Approaches) can be associated with the transregional function of play. If one refers to the category of games described by Roger Cailliois as 'ilinx' or 'vertigo', and if one further accepts the psycho-analytical interpretation of play as a way of resolving libido tensions, one can account for the number of play practices in which the player deliberately tries to flint with death or put himself in a physical or psychological state at the extreme limit of his endurance, or to provoke in himself a feeling of dread or horror. Folklore the world over is full of masked festivals, tales about death, imaginary characters such as witches, ghosts, bogeymen, ogres, etc... In Mexico, they sell candy skulls and cross-bones, which are relished by children and old people alike. There are countless word and drawing games that provide an opportunity to tamper with the laws of decorum, morality or logic (nonsense rhymes or games). Games of make-believe make it possible for a child, with his teddy-bear or doll, to strike a blow at the family hierarchy by parodying parental or social authority, or even enacting the death of his father or mother in dramatic games. In some cultures, the transregional aspect of play a given formal sanction during permissive festivals or carnivals. It can in fact be said that

1. Ibid.
4. J. Huizinga, op. cit.
play functions as a veritable ‘institution of transgression’, which cannot be obstructed without serious psychological consequences for both the child and the adult and without profoundly affecting the child’s capacity to integrate.

Educational role of play

It is not surprising that play, society’s way of providing an outlet for the pent-up forces within it, is both a vital safety valve and an actual educational institution operating spontaneously. Play assumed this role even before there was such a thing as school, and continues to do so today, before and during a child’s school-going years. Technological know-how and rudiments of knowledge are transmitted through play. A child deprived of the first rudiments of knowledge that it brings him would be incapable of learning anything at school, and would be irreparably cut off from both his natural and his social environment. When a child plays, it is his initiative into adult behaviour, into the role he will be called upon to play in subsequent life, he develops his physical, verbal and intellectual capacities and his ability to communicate. It is a coextensive institution of society as a whole and constitutes a far broader factor of communication than speech; it facilitates communication between individuals from different linguistic or cultural backgrounds and enables contact to be established between the psychotic and his therapist.

Through its institutional aspect, the arbitrary nature of its rules and the virtually compulsory ways in which they are transmitted and through the hierarchical structure of the group of players, play is a micro-society in which children receive their initial training in social behaviour.

Watching children playing marbles in the Geneva area, Jean Piaget noted the immutable way in which the “laws” were passed on, each child spontaneously accepting them as binding without being remotely aware of how or by whom they had been transmitted. The same applies to other cultural models.

‘In group games, the child learns to see where he stands in relation to the others, within a definite hierarchical framework. In doing so, he learns to appreciate his own position as a member of the group, thereby determining his personal status, and ultimately to perceive the group in terms of himself and of other groups.” It is in the course of play that a newcomer will be welcomed or turned away, and that children assimilate the ethical values of the society to which they belong. The children’s group or association therefore has an essential role. The ethnologist Pierre Erny gives the following description of the function of the group among African children.

‘Children from a whole village or from a whole neighbourhood mix at a very early age. Individual differences are brought face to face; to begin with, children go about their activities separately, then gradually these activities interact and finally, with rapidly acquired maturity, they are shared. Thus a sort of mutual education process takes root within the juvenile society, more or less on the fringe of the adult world, and it is perhaps not exaggerating to say that there is in this education the element of socialization that is a preponderant in traditional societies’. And he concludes, ‘In the peer group organized to all intents and purposes as an educational institution, the child encounters an environment that is different from his family, and is able to undergo his training for life in society away from over-restrictive bonds of affection, belonging and dependency. There he will find, in embryo, the atmosphere which will later be characteristic of the public life of an adult. He will perceive society in a new light and step by step will prepare to make his entry into that society and meet all of its requirements’.

It goes without saying that the educational institution of play is the carrier, along with the cultural heritage, of certain social norms that may become obsolete, such as segregation between boys and girls.

While respecting play, the educator, in his capacity as such, can endeavour to propose new patterns. Indeed, not least among the virtues of play are its existence as a particularly effective channel of transmission and its receptiveness to innovation and creativity. It may often happen that children’s games are technologically and ideologically ahead of their social context and are a vital source of invention and progress. Any would-be progressive society therefore owes it to itself to regard play as being of the utmost importance and to keep a watchful eye out for any premonitory signs foreshadowing its decline. In industrialized countries, where children are regarded as sacrosanct and confined to their role as children, and yet at the same time thwarted of a feeling of any real difference between themselves and adults, sharing as they do the latters’ language, entertainments, clothing, etc., there is often a critical loss of the capacity for symbolic play, as children and adolescents — a genuine socio-economic leisure class with some of its members more privileged than others — are taken over by the commercial, publicity-based structures of a consumer society.

ETHNOLOGICAL APPROACHES

For the ethnologist, play behaviour is as valid a subject for investigation and theorization as family relationships or table manners, and it is surprising that it has not been studied in greater depth.

The reason may be that games are seen either as religious practices, to be studied as such, or as purely infantile, as yet non-formal and in a sense pre-cultural occupations.

But in fact they form a substantial part of the activities of a section of the community and should on no account be regarded as a random assortment of anecdotal elements. On the contrary, play is a complex structure, a coherent whole which must be studied in the same way as mythologies, and in which any artificially induced changes affect the whole and can have a profoundly disrupting effect on it.

As universal a game as playing dolls, enjoyed by little girls in nearly every society known to us, is far from being a meaningless pastime, or invariably the same.

In this connection, the ethnologist P. Erny writes: ‘When a little African girls plays dolls, she is, to be sure, indulging in a specifically childlike occupation, fulfilling the same psychological functions as in the rest of the world; and yet in the eyes of the adult her game is not

1. On the subject of play and its coextensive character, broader than that of language, see Comme krou, La fonction éducative du jeu, Dossiers Pédagogiques, (Paris, AUDECAM), No. 8, November-December 1973, p. 7.
4. Ibid., p. 22.
Sheer recreation, but is recognized as having a meaning and an effective purpose of which the child is unaware to begin with but will discover little by little, sometimes in the course of a proper initiation. One might say that in these traditional societies there is no such thing as childish trivialities. The doll belongs to two worlds, the adult's and the child's, but in a very different way: in the one it is treated with the obliviousness that makes a game a game, and in the other, the game is watched, interpreted and speculated upon.

Charles Béart noticed for example that apparently identical objects were used both by little village girls, just as a child anywhere might play with a doll, and by sterile women or mothers who had lost a child, as magical objects invested with a sacred function.

A recent study by Suzanne Lallemand, on the symbolism of dolls and acceptance of motherhood among the Mossi, revealed the twofold function of wooden statuettes made by the village blacksmith in this ethnic group of Upper Volta. The primary function of these 'wooden children', specially made for young newly-married or sterile women, is to 'attract the child'. When a real child is born, the 'wooden child' is still meticulously cared for, and is even given the first drop of mother's milk. Subsequently, if the child is a girl, she will be given the same 'wooden child' and will look after it over the years, treating it both as a real infant and as a doll, but knowing that any accident which might befall it, like losing or breaking it, might have dire consequences for her own progeny.

There is no difficulty in discerning how, in different ethnic groups, the various toys bear the distinctive stamp of the culture to which they belong. For instance, when children in various parts of the world indulge in one of their favourite pastimes which consists of moving objects, animals or other children about (making a thing move amounts to asserting one's authority over it), one finds there are considerable variations in the choice of objects and the methods adopted to make them move. Some peoples consistently show a preference for traction (with a string for example), while others, methods of propulsion - 'push-along' systems - predominate. Such a choice may possibly be connected with a society's past; where emphasis has been placed on an agricultural or a pastoral way of life, this may have survived through toys.

Even when a particular game is prevalent in a large number of cultures, local variations are evidence of cultural vitality. Taking the example of the '12-square game', the Baoulé awiélé (see page 60), certain common features can be discerned out of the hundreds of known rules of the game which is played all over Africa, the Mediterranean, Indonesia and South-East Asia and part of Central and South America. It is a game of strategy, for it is competitive and requires some thought in anticipating the next move, even if it does not always involve any actual calculation in the strict sense. The game consists of a board with two (or in some versions three or four) rows of squares (or holes), two players each with his own row (or two rows, or one of his own and one in common), and a number


Figure 10: The sledge
The tradition of traction is illustrated by this engraving by Jacques and Claudine Bouzoonet Stella, taken from their work entitled Jeux et plaisirs de l'enfance published in Paris in 1657. (Re-edition Dover Book)
Figure 11: The principle of the push-along toy is found again and again in African children's games. (Drawings by Renaud de la Ville. In: Programme for Television Education, Ivory Coast, Vol. XIII, plates IV and VI.)

Figure 12: In the Ivory Coast, the traditional theme of the push-along toy allows full scope for technological creativity. (Source: Programme for Television Education, Ivory Coast, Vol. XIII, plates IV and V.)

- seed
- cotton reel
- wire and tin can
- pieces of wood nailed together
- cleft stick
- ends bound
- perforated raffia stick
- with sound-effect
- used as transport
of identical pieces distributed at the beginning in the various holes, the idea being to move them around the board by alternate turns of play in order to accumulate (rather than capture) as many pieces as possible to win the game.

The existence of different versions of this game over vast areas of the globe raises the pet theme of ethnologists, convergence or dissemination. Should it be thought of as a single game, invented in a particular place (where?) and subsequently conveyed (by whom?) to the rest of the world? Or on the contrary can it be speculated that the game began as a single basic model, or 'medium', subsequently developed by different societies independently of one another? The latter hypothesis is advanced by Juliette Raabe¹, who believes that the avéle was formerly an abacus or calculating machine, the equivalent of the counting-frames still widely used in the East and in Central and Eastern Europe, with the help of which it is possible to add, subtract, multiply and divide without any knowledge of the arithmetical theory behind the four operations. Like the Greek and Roman abacus, an instrument of this kind was initially used for divinatory purposes, but with the decline of its divinatory significance, its utilitarian function became predominant, although its sacred function persisted through its survival as a game — a game with strict rules, prescriptions and taboos, which is associated with, or actually governs, the procedure of certain religious ceremonies. Among the Alladians of Jackville, for instance, when a chief dies, the prospective candidates have to prepare themselves worthy of the post by taking part in a games tournament, with propitiatory ceremonies preceding the actual contest. Another example is given by the ethnologist E. Labouret², who notes that among the Manding, the game known as ward plays an essential part in the circumcision rites signifying a boy's advancement to the next age group. Once the operation is over, the boys are placed in collective confinement for six days and the game is the only occupation they are allowed.

Marcel Griaule³ has pointed out the strong connection between the rules and way of playing of the Dogons and their cosmogony. Assia Popova⁴, in respect of the same game, has shown that there is a correlation between the principles of play and those of barter — a connection between the movement of the pieces on the board and the flow of words and goods. Games thus offer a true reflection of the former functioning of African societies.

In general terms, games afford particularly valuable insights into the cultural values of society which they reflect symbolically in the rules of play and the use of traditional decorative designs.

Through play, write R. Dogbeh and S. N'Diaye⁵, the African child is able to take advantage 'of the repertory of desacralized forms and sounds which he can arrange as he likes. For once he has reached adulthood, he will be forbidden to interfere with them. The village community helps the child to develop his aesthetic sense as far as possible before taboo sets in'.

In fact, 'knowledge and the translation of symbols and rhythms are a part of social integration'. Even when children are left to make their own toys, it does not mean that toy-making is of no concern to society as a whole. Through play and toys, a child is brought into relation with the founding myths of his people. However, with artificial, expensive industrially-made toys, the Western child is plunged from infancy into the dominant ideology of his society. Play and toys may be vehicles of traditional values but they can also turn out to be the agents of de-culturation and distortion. Special attention is thus called for, which will be discussed in greater detail over page et seq. under 'Pedagogical approaches'.

In conclusion, let us quote R. Dogbeh and S. N'Diaye's comments with regard to learning the cultural values of the community. 'There can be no doubt that in a community-type society, more than in a society placing emphasis on the individual, play reveals both the nature of human relationships (between children and adults, men and women, young people and old) and also the nature of the relationships between man and his environment.'

4. A. Popova, op. cit.
5. R. Dogbeh and S. N'Diaye, op. cit., p. 26; the Lao People's Democratic Republic (below, p. 26 et seq.) offers a striking example of the interpenetration of cultural, artistic and musical traditions, and play.
In his study on children’s games in Kenya, Julius Carlebach thinks, as we do, that ‘the more traditional games of the children show clearly the important role which play occupies in the specialization of the child. The social roles and social function of the parents and other adults are clearly understood and experimented with. This natural form of socialization is thus much more direct and effective than it can be amongst children whose parents occupy a confused and only dimly perceived function in the child’s environment, as is the case in more advanced societies. This may partly explain the relatively severe breakdown of behaviour of African children reared in the difficult milieu of the larger African cities. Their confusion and perplexity is no less pronounced than that of their parents or indeed of many urban dwellers anywhere in the world’.

It may be noted that since there are no barriers between the adult’s conception of the world and the child’s grasp of it, play in Africa is a training-ground for social life. The instruments the child uses to play or make a toy with are usually the adult’s working tools; boys and girls of the same age are preparing, in their respective roles, for their future duties as producers of consumer goods and managers of their household belongings. In the village community, play is a vector of a way of life.

PEDAGOGICAL APPROACHES

‘On the one hand, play activities and materials are the best way for a child to express himself and the best testimony by which the adult can attempt to understand him; and on the other, they can serve as a basis for the teaching methods and techniques which the adult wishes to devise for the child with whose education he has been entrusted.’

For it would seem only natural that play should have its place in the classroom. Nearly two thousand years ago, the Roman rhetorician Quintilian expressed the wish that ‘learning be a game for the child’. And yet despite the innovative theories advanced by Claparede and subsequently by Decroly and Freinet (see above, p. 8), the role of play is far from being recognized by education authorities everywhere. ‘For some adults are averse to children’s play and will even try to repress it, as though it were a waste of time and energy when there are more urgent and serious things to do. This is the attitude of certain teachers, who are in a hurry for the child to reach the age of reason as quickly as possible, and some parents who regard their child as an investment that must bring in returns as soon as it can walk, talk and tell its left hand from the right’, writes Y.S. Toureh, adding, ‘this is true of parents living in poorer socio-economic environments, in which the age for play is cut short or done away with altogether, so as to turn the child into a miniature adult, expected to engage in subsistence activities before he has even really learnt to play’.

This negative attitude to play is not confined to developing countries or poorer families. In societies in which excessive emphasis is placed on formal education as the ideal way of achieving social advancement, there is just as much of a tendency to regard play as unproductive, which is why, all too often, it is banished from the classroom.

2. Y.S. Toureh, op. cit.
3. Ibid.

Figure 15: Examples of very simply-made dolls that little girls in the Ivory Coast are given to play with. Above: a calabash with a necklace around it; bottom left: clay figurine; bottom right: doll made of sticks and string. (Drawings by Renaud de la Ville, in Programme for Television Education, Ivory Coast, Vol. XIII, plate VII.)
after kindergarten level, 'when school begins in earnest', and is relegated to the playground. For 'conventional school education is based on the idea that the moment a child begins to learn to read, write and do arithmetic, as soon as imparting knowledge is geared to the acquisition of certificates, play becomes no more than a puerile activity, to occupy one's spare time and relax from muscular and cerebral fatigue'.

But recognizing the fundamental importance of play does not mean confusing it with schoolwork either. Comeo Krou has drawn attention to the dangers of confusing the two. 'When an adult interferes in a game as an adult, it is no longer a child's game. A game that is left to run its own course will not go the way the teacher wants, and he will be inclined to make changes to suit his own educational purposes'. Under such conditions, play is liable to become simply another form of work. 'The educator is faced with the dilemma of knowing that play has an educational function, but being unable to mould it as he would like'.

It is essential to grasp the fact that 'the function of play is self-learning. In our opinion, the adult can do no more than encourage play groups, reply to whatever questions the children ask spontaneously while playing these games, and have a store of the materials they are likely to ask for. It is a difficult task, for 'to teach but not to occupy one's spare time and relax from muscular and cerebral fatigue'.

The teacher must therefore not be expected to introduce play activities into the classroom on an impulse of naive enthusiasm, without having previously given thorough consideration to how play can assist him in the exercise of his profession.

Recognizing and encouraging play

For the teacher, play is above all one of the best ways of getting to know a child, both as regards his personal psychological make-up and his cultural and social background. By observing a child at play, it will be possible to detect the appearance of affective, psychomotor or intellectual disorders in his development, identify what stage of mental development he has reached - which will have to be borne in mind if the learning methods employed are to be improved upon - and discover which methods are most likely to succeed (see page 30). For 'a child, whatever his age, belongs to a given culture which must be learned and discovered'.

Communication between pupils, or between the teacher and his pupils, is established through play, where verbal communication may have failed. Finally, play provides a release from the pressure of school and everyday activities and the discipline required in work and group activities.

Having acquired the conviction, therefore, that play is a vital need for a child, that it is at once a 'preserve' apart and the foremost educational institution, teachers will begin by acknowledging the legitimate importance of play, before even contemplating ways of incorporating it into their teaching.

They should make concrete provision, both in the school timetable and on the school premises, for the organization of a free play area that the child will be able to use in accordance with his needs outside of national pedagogical structures. It goes without saying that the organization of such an area may take on a wide variety of forms, according to environmental and living conditions. In a rural environment, it may be desirable to plan out a vast, informal area with landmarks, obstacles and signs, whereas in an urban setting the most effective playground would no doubt be an open space left in a rough and haphazard state, like some derelict vacant lots which are the last refuge of children's play in cities. Similarly, for children whose lives are organized down to the last detail, complete freedom is desirable, whereas for children who are often left to their own devices, without any cultural background, it is preferable to organize their play and leisure time.

The first step will therefore be for the teacher to do what he can unobtrusively to encourage play activities without controlling them, simply offering tacit encouragement, which the children will appreciate all the more if it is genuinely felt by an adult who is glad to see the children at play but has no intention of interfering. However, the teacher's role is often decisive in disseminating play know-how, which he will endeavour to promote by encouraging children of different sexes, age groups and social and ethnic backgrounds to share their experiences. In this way, he will help to set up a real system for the development of knowledge acquired through play activities in the children's natural environment.

Play and learning

Before actually introducing games into the classroom, teachers will have to define clearly the pedagogical goals they have set themselves, and decide in what way children's games and toys are likely to contribute to them. Dogbeh and N'Diaye have defined pedagogical aims in terms of seven goals, based on Bloom's classification:

1. straightforward knowledge: 'memorization and remembering facts already learned'
2. understanding: 'transposing one form of language into another interpreting data contained in a message, extrapolation of a trend or a system'
3. application: 'selecting and using abstract concepts, principles and rules in new situations, with a view to finding an original solution in respect of situations and problems of everyday life'
4. analysis: 'analysing a complex set of factors, relationships or principles'
5. synthesis: 'structure (summary, plan, outline, reasoning) of the various elements coming from different sources'

4. A Peruvian schoolteacher has used the local tradition of nursery rhymes and riddles to put nature study on a more familiar footing (Pere, p. 40, second experiment).
5. Y.S. Toureh, op. cit., p. 22.
As part of a vast project for educational development in Jamaica, a number of toys are made from cheap, natural or waste materials: bamboo, coconuts, shells, corn cobs. (Source: Van Leer Foundation)

Figure 16:
Fish made of small clam-shells stuck to a piece of bark which can be from various types of tree (mango tree, bread-fruit tree, plum tree, rain tree, etc.).

Figure 17:
The people in our community who help us is the subject of the last section. They include the nurse, policeman, farmer, painter and street-sweeper. Even the paints used by the painter are natural materials, such as clay mixed with gum arabic, dyes extracted from log-wood bark and hibiscus flowers...

NURSE: her face is made of cardboard, her hair of wool, and her neck, arms and legs of corn cobs. Strips of material are used for her uniform, and cardboard or stiff white paper for her hands, feet and cap.

Figure 18:
TORTOISE made from a coconut shell and papier mâché.

Figure 19:
SNAKES made from pieces of driftwood or a string of seeds (here, flamboyant shoots).
This text discusses the role of play in education and development. It highlights the importance of play in cognitive, emotional, and social development, mentioning activities such as games, drawing, and storytelling. The text also underscores the need for educational methods to be flexible and responsive to children's needs, emphasizing the value of cultural and local resources in teaching and learning processes.

1. Y.S. Touroh, op. cit., p. 20.
2. Forming sequences implies the ability to grasp and order 'qualities' without being deluded or distracted by variable shapes and spatial factors (thus a four of clubs and a four of diamonds have the same value despite shape and colour differences).
3. Hence all the card associations (pairs, three of a kind, full house, quint, etc.) one needs to know for many games. Through play, abstract arithmetical concepts become accessible. See India, p. 32-3.
4. On the subject of play in initiation rituals, see Sociological approaches, p. 10 et seq.
5. Y.S. Touroh, op. cit., p. 22.
such as segregation of the sexes, which is the rule in children’s games in many countries.

Teachers should record and study the play materials, games and playthings to be found locally. These can be classified under five major headings:

1. **Exercises** — attitudes and physical behaviour: running, jumping, chasing, etc.
2. **Verbal expression** — nursery rhymes, stories, tales, riddles, games of logic and reasoning...
3. **Concrete items** — figurative and symbolic objects such as dolls, masks or other meaningful objects...
4. **All behaviour related to performing or plastic forms of expression** — choreography, theatre, transforming appearances, drawing, modelling.
5. **Any objects** which are not specifically intended as playthings but might acquire such a function because of their appeal and the service they might render to the subject.

Having completed the inventory, the teacher should evaluate the play materials in terms of the goals to be attained. He will come to one of three conclusions: a) the play activities and objects are thought to respond perfectly to the goals to be attained; b) the activities and objects would be worth improving upon, to bring them into line with these goals while preserving their original character; c) it appears necessary to introduce novel elements, or even substitute them serving their original character;

With this in mind, the important contribution of reading matter (novels, newspapers, comics...), entertainment media (cinema, television) and the mass media in general (advertising) should not be overlooked. However much one may regret it, it is a fact that the world-wide dissemination of certain themes (the Wild West, for example) or characters (Mickey Mouse, etc.) is instrumental in laying the foundations of a new mythology for children the world over (see p. 59).

Teachers should therefore let children bring their fantasy world into the classroom, even if it thrives on comics and advertising slogans. They should endeavour to help the children link up this new ‘culture’ with traditions inherited from the past, and use it to increase their awareness of the modern world. They should encourage the children, by way of all possible pedagogical expedients (marks, prizes, etc.), to communicate games played out of school to the rest of the class, and to experiment with new games. They should further encourage the children to collect whatever they might need at school to make their own toys and educational materials.

1. **Natural materials:** branches, leaves, bark, reeds, bamboo or corn stalks, straw, gourds, pods, egg or nut shells, dried fruit and seeds, stones or pips, thorns, palm fronds, sawdust, ash, coal, lamp black, feathers, animal hair, animal and fish bones, tanned hides, sea-shells, sand, clay and stones.

2. **Cheap materials** that can be bought if need be: plasticine, beads and playing cards.

3. **Tools:** hammer, saw, knife, punch, anvil, workbench, trowel, clamp, screwdriver, plane, nails and needles of all kinds, paste, gum, adhesive tape, crayons, dyes, paints...

By collecting a large stock of play materials, the teacher can go beyond the active teaching method, which takes in a certain element of play, but is not play, using it essentially as a means of motivating the child. By introducing play into the classroom, better results can be expected, especially the acquisition of new didactic tools which will make it possible, more specifically: to effect the transition from know-how to knowledge proper, by strengthening attitudes and stimulating an awareness of them; to effect the transition from the concrete to the abstract; to discover levels of performance (physical, memory, logic, verbal); to devise new knowledge-testing procedures; to facilitate communication and expression; and to develop the child’s imaginative capacity.

In this way, ‘in becoming less directive, school today will necessarily have to devise its strategy in terms of self-learning and play, to ensure the homogeneous continuity of its pedagogical action, in modes of learning to which the child is likely to have recourse whether in class or in the street, at home or anywhere else. What emerges from this intention to encourage the reconversion and transfer of educational principles is the idea that knowledge and general experience of life, school and the family; traditional culture and the modern world should no longer be seen in opposition’.

To illustrate these general pedagogical considerations, six teaching cards on the use of games for various types of learning are given below (p. 57-63). In the second part of the report, a series of case studies will show how in practice, and in widely differing regions and cultures, educationists can strive to know more about children’s play and use it as the basis for a new approach to teaching.

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1. Y.S. Toureh, op. cit., p. 22.
Figure 21: At the competition for non-industrial toys held in Birmingham (United Kingdom) in the Autumn of 1972, these musical instruments were awarded third prize. They are made of margarine cartons filled with screws, seeds, small bells, etc., with different-coloured lids showing a letter or number so as to teach children to differentiate between sounds, to count and to recognize the letters of the alphabet. The judges considered that these articles were made of 'materials that three-year old children would use and like'. They have the added advantages of being easy and cheap to make and of being attractive to look at. (Source: Van Leer Foundation)

Figure 22: The first prize was awarded to a set of building bricks. These bricks, which are made of wood off-cuts, are designed with a view to helping children to think in three-dimensional terms. Judges were impressed by the simplicity of the shape, the material and the design, and by the fact that the toy can be used in a wide variety of ways according to the child's level of development. 'They can be made by anybody anywhere', they said, 'They are tough, cheap to produce and replace and easy to put away'. (Van Leer Foundation papers) (Source: Van Leer Foundation)
CHILDREN'S GAMES AND TOYS IN THE IVORY COAST

This research, based on an inventory of children's games in the Ivory Coast, was carried out in 1973 by Chantal Lombard, a Unesco consultant, for the Bouaké television complex. It shows how a study of games and toys can contribute to a better knowledge of the children in a particular country, and of its culture in general. The main theoretical points she makes are outlined here, together with actual examples taken from the inventory itself, and her proposed classification and suggestions for the use of games and toys for teaching purposes.

Knowing which games children play is one of the most direct ways of appreciating the natural environment in which they live and express themselves. For in play activities, where the player does something which interests him for his own enjoyment and not for some functional purpose — the distinction a child will make, for example, between actual hunting and playing at hunting — the ecological, cultural and psychological factors peculiar to a social group are an integral part of the game, experienced and modified during play.

Play behaviour leads the observer to the very root of what children desire — in their games are expressed their aspirations to invent, compete, communicate or destroy. The players constitute a children's society with its own code, its values, rites and symbols.

In the course of a game, the educational psychologist will be able to elicit information as to children's sociability and the rules of social intercourse. Teachers will be able to use the inventory as a source of ideas for manual activities or intellectual, vocabulary, concentration and memory exercises. Science subjects may be illustrated by examples taken from the technical experience gained by children concerning each one of them. They are the village news-mergers, the bards of African history.

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An attempt was made to observe games as played by children in the course of their normal lives. The present changing situation in which traditional and modern environments co-exist, interact or are mutually exclusive is reflected in the lives of the children and their play activities.

In villages where there is as yet no formal schooling, where the way of life is rural and traditional, children play according to a clear-cut traditional pattern. When there is work to be done in the fields, the children are present, whether as tiny babies strapped to their mothers' backs or down on the ground watching the others work and amusing themselves with other children their age. From a very early age, they help with the work, and are expected, depending on their age and physical strength, to gather up dead leaves and branches, plant yams or hoe the ground, and to keep watch over the crops. The children will play around in the bush to keep themselves amused, either when the work in the fields is being done by the adults or when it is not very demanding, or else on days of rest or during the dry season. Bush games are the boys' preserve. Boys are free to come and go, and gangs of them of the same age will go off on their own business in some corner of the bush. The most representative manifestation of these secret activities is the Kibô, a club composed of boys between the ages of six and twelve who from time to time will come out into the village and perform a mask dance.

The girls play less in the fields, for they have the job of looking after the smaller children and taking food to the workers. They are less given over to carving toys out of wood or hunting and fishing. Their speciality is whiling the evening away in the village. As soon as the meal is over and the washing up done, they all go off and meet up on the village square to sing and dance. They sing about day-to-day events, about their true loves, or little incidents concerning each one of them. They are the village news-mergers, the bards of African history.

In traditional African society, girls' activities were always distinct from boys', and this applied to their games as well as to their social life.

School and urbanization were both contributing factors in the process of acculturation with which socio-economic change began. Lifestyles were transformed and play activities changed. School was initially responsible for the break with tradition: children of both sexes were treated in the same way, ethnic characteristics were pushed into the background, and children were plunged into an imported culture with a language, values and ways of life differing from those of their family environment. The question was whether recreational pastimes would reflect this acculturation. Observations in several schools in the Bouaké area supplied concrete evidence of the unique role of school in the revival, enriching or abandonment of children's games.
Town life makes all children, whether they go to school or not, familiar with the modern world. Children are exposed to a universe of fascinating objects which is more often than not inaccessible to them—the fascination for a mysterious treasure that cannot be theirs; the adults’ world is forbidden territory, much more than in the country. In the towns, children have more interests and fewer opportunities, although that statement might be qualified, for a town-dweller has a greater stock of materials and more sophisticated tools at his disposal than in the village, and the varied, daily spectacle of life in the streets is an education in itself; he also has a large amount of leisure time.

The status of the child in Ivory Coast society today is changing. He is no longer being rushed into growing up, but is an individual developing at his own pace, with his own activities. Very often the parents fall back on their traditional pattern of life and leave the children’s education entirely to their teachers. The natural channels of transmitting traditional culture are disappearing; children no longer learn tales and legends from their elders and it is clear that proverbs with or without any idea of what they mean.

During the survey, the children often had difficulty in explaining the point of their games, and the adolescents, former pupils, were unacquainted with the village games. As a result, the survey was confined to observing games in three Bouaké villages and to analysing verbal accounts given by first-year pupils at three Bouaké secondary schools. In doing so, an attempt was made to give an overall picture of the play situation in the Bouaké area, an interesting environment combining both traditional and modern ways of life and covering a large and varied number of ethnic groups. In this report, traditional Baoulé games are to be found alongside schoolchildren’s games, which may originally have stemmed from the introduction of formal schooling; the actual play pattern is a composite one, and one hears for example illiterate village girls singing French nursery rhymes without any idea of what they mean.

In Baoulé, games are denoted by the term ni’goa, meaning any activity indulged in principally for pleasure. The schoolchildren interviewed were free to use the word ‘game’ in whatever sense they felt was appropriate.

Games can be classified according to various criteria. In the context of the Ivory Coast, it was felt that the most suitable method was to group them according to the comparable actions involved. All the games and toys in the inventory were thus divided into the following categories:

1 - Play activities involving toys

- Hunting and fishing
- Motor cars
- Toys linked to the world of technology
- Dolls - figurines - statuettes
- The home and household fittings
- Animals
- Ornaments, dressing-up
- Musical instruments

2 - Games of skill

- Throwing games
- Construction games
- Moving games (changing the place of an object, etc.)

3 - Action games

- Racing-chasing
- Hide-and-seek
- Jumping
- Wrestling
- Balancing - swinging

4 - Games of wit

- Games of concentration
- Games of self-control
- Verbal games
- Riddles
- Mathematical games

5 - Dramatic games

- Acting games
- Ritual games

6 - Singing games

- Singing to body movements (hands, legs)
- Mimed songs
- Rounds
- Singing games with pebbles
- Songs for school girls

7 - Games of chance

- Throwing dice
- Guessing games
- Selecting at random
- Ordeals

8 - Stories

9 - Dancing

The games were recorded on cards. The serial number, the name of the game, play category, ethnic origin and finally a description of the game are written on the front of each card. The back of the card is divided into several sections: the players, the moves of the game, the play function (in the sense defined by R. Caillois, p. 6) and the source of information.

Although children in the Ivory Coast nearly always make their own toys, they rarely begin to do so before the age of seven. When they are babies, they are given wooden dummies which are tied to their wrists, and later a kind of pushcart which enables them to stand up and move around before they have properly mastered the skill of walking. They are given rattles or balls to hold or play with, and later, around the age of two or three, pushing or pulling toys: cars, aeroplanes... Little girls will be given dolls, pestles, scraps of cloth which they will make into clothes; boys of five or six will be seen ‘hunting’ with guns made of palm bark or raffia. By that time, children are acquainted with the different kinds of leaves and fruit and can make belts, bracelets, hats and watches for themselves out of them. They also make objects out of clay.

The next stage is hunting and fishing, carving objects out of wood or bamboo and discovering the elementary technological principles. The culmination of this period comes around the age of twelve or thirteen, by which point a child is capable of carving wheels, bending wire, cutting out with a razor blade, in short, of producing as sophisticated a toy as he might wish for.

But it must never be forgotten that the function of a toy is as much symbolic as technological, and that an apparently primitive toy can satisfy a child’s desires and needs just as well as a more sophisticated one.

The most common toys, involving a subject of interest to all children from the very youngest to pre-adolescents, are those which simulate the car. They are either pulled along by string or, more frequently, pushed with a rod, and usually have a steering-wheel and some device to turn the front wheels.

1. These toys are usually made by the children themselves with local materials—wood, bamboo, clay, wire, food cans.
2. These games can be played with aids such as pieces of wood, stones, etc.
With the same natural materials — wood, bamboo, bark, seeds, etc., or odd scrap materials salvaged by the children — wire, food cans, bottletops — they can make other vehicles as well (aeroplanes, bicycles, etc...) or the most varied items of Western technology: sewing machines, tape recorders, radio and television sets, cameras...

All the things to be found in a village, the houses and items of furniture, are reproduced in palm-raffia or carved out of softwood, as are the various wild animals which are often articulated and propelled along by means of a lever system.

There are innumerable musical toys, some of which are extremely primitive such as the oil drum or papaya trunk, made to vibrate, and others more elaborate like the musical bow or the xylophone painstakingly carved out of a special type of wood. The children also know which trees have fruit which will produce the best sounds, and the liana which has very hard seeds that make good pluckers.

The dolls given to little girls are often very primitive, a good round calabash with a necklace and a piece of cloth tied around it and a tuft of grass with its roots plaited for hair. The little girl herself sees to the clothes and ornaments for her toy.

Where do the children acquire their technical know-how? Rarely from the adults, who are expected to admire the finished toy but do little to help make it. Some knowledge is however, passed on through the grandparents and guardians.

Their school education seems to have a somewhat negative influence. The children are fascinated by technology which they observe from afar, and sometimes lose their former manual skill once school enables them to develop further the tools of language and theoretical knowledge. School is still, however, a focus of manual creativity, as long as there is no attempt to divert the basic purpose of that creativity. What it does do is help children discover new materials and models, enriching their cultural heritage by bringing different ethnic groups together.

The older age groups have a fundamental role to play in a child’s learning of toy-making techniques, for they teach the younger ones and make them the toys that they in turn will later be making themselves.

How to make a motor car out of wire
Although natural or waste materials will be used, a child will usually employ 'proper' tools to make his toy, and is extremely adept at handling them, with no accidents. As an example, here are the technical instructions for making a car out of wire.

MATERIALS
Choice and origin of materials:
- fencing wire
- rubber from bicycle inner tube

Tools:
- stone, hammer, machete, pliers, scissors, razor blade

Techniques employed:
- bending the wire by hand or hammer
- binding the ends with strips of rubber cut out with scissors;

Step-by-step construction method:
- making the shell
- chassis and bodywork made with wire twisted into shape, binding the ends;
- Making the shaft and wheels.
- The wheels are made by bending the wire around a tin can. The wheels and axles and the steering-wheel are fixed in place by a twist of wire.
- Mounting the steering-wheel.
- The steering-wheel is a long, often thicker wire rod twisted at one end to fix it in place and held fast between two rubber rings, and bent into the shape of a steering-wheel at the other.

A TYPICAL WIRE CAR
Rectangular chassis
Back wheel-axle unit attached to chassis by two shafts.
Front wheel-axle unit fixed to chassis by a smaller shaft than at back and connected to steering-wheel.
Front wheel steering — long steering-shaft (+ metre), length depending on size of child.
- If there is a shortage of metal, the steering shaft is made of wood.

Figure 23: Models of cars made by children in the Ivory Coast. (Programme for Television Education in the Ivory Coast, Vol. XIII, plate VI)

LAO GAMES AND THEIR POTENTIAL USE IN TEACHING
During his stay in the Lao People’s Democratic Republic from 1974 to 1976, Martine Mauriras Bousquet recorded twenty-one specifically Lao games. Large extracts from this survey, and theoretical reflections prompted by it, are to be found below.

Ethnographically speaking, the Lao People’s Democratic Republic is one of the richest countries in the world. Each of its ethnic groups has a distinct origin, language, set of customs, religion and, in particular, play habits of its own. It would be meaningless to conduct an overall survey of games in so varied a context. This study is therefore confined to the Lao people strictly speaking, that is, the peoples living in the plains and low-lying valleys.
Lao culture has been influenced by China, India, Cambodia, Burma, Thailand, Viet Nam more recently, France and, in the last few years, the United States of America.

It is not difficult to recognize any one of these influences on Lao games. Despite such extremely diverse origins, the stock of Lao games combines into a particularly well-integrated whole and has common characteristics which justify our studying it as a distinct phenomenon and drawing conclusions as to the psychology and sociology of the population group concerned and pedagogical applications for Lao schools.

An initial indication as to the originality of the repertoire of Lao games is given by the fact that the Lao do not indulge in some of the more popular games played by their neighbours, although they are perfectly well acquainted with them.

For instance, kite contests, which are very popular in China and Thailand, have never taken on in the Lao People's Democratic Republic. The hanging swing, a typical feast-day game in Thailand, is not found there either, and stilts, which were introduced into French schools for recreational purposes around 1930, never had many adepts there. And yet in the countryside, stilts made of two notched bamboo stalks are commonly used to go from one house to another during floods. Since they have a utilitarian purpose, they have never been associated by young Lao with play. It is as though the Lao were not prepared to adopt at random any of the games that came to them from the outside world, but only those which fitted in with the specific play habits and structures typical of Lao culture.

At the present time, twenty-one games can be singled out, nearly all of which are endogenous and some of which exist only there. In the pedagogical context of this research, the essential criterion is that the game be perfectly assimilated into the Lao cultural environment. It is an environment which moreover has the remarkable capacity of inventing new, authentically Lao games out of imported elements. Thus we have: the sandal game, which is played with the rubber sandals which have been common in Laos for the past thirty odd years; the picture game, using advertising cards from Thailand; and the rubber band game, extremely popular throughout the country.

**Lao games in terms of Roger Caillois' classification**

With regard to these categories, the case of this country is rather remarkable. Whereas Charles Béart was able to demonstrate that most African games fell into two categories, mimicry and vertigo, confirming what was already known about the structures of African society more generally, Lao games are spread out very unevenly over the four major categories. Out of the twenty-one games described, there are fifteen games of competition, two games of chance, one combining competition and chance, one game of mimicry, one combining mimicry and skill, and one combining vertigo and skill. If one were to take all the games played there, the proportion of competitive games would be even higher. This gives us a distinctive play pattern that is very different from the African pattern described by Béart; and furthermore, this play pattern is perfectly in keeping with what one might have expected from a study of the country's cultural and social structures. Games and society are inseparable.

In the Lao People's Democratic Republic, there are hardly any games of 'vertigo'. This is fairly understandable in a profoundly Buddhist culture, founded upon a rational-}

alist spirituality and not particularly prone to the pleasures of mental or physical aberration. The only exceptions are the extremely violent game of polo and the greezy pole. It must be pointed out, however, that they are games for festive occasions and are therefore exceptional; Ti-Khi (polo) was played once a year at Vientiane during a royal ceremony and is in fact as much a game of skill as of vertigo; the greezy pole is also a festival game and originally had a utilitarian function (picking areca palm nuts).

The combination of vertigo and mimicry in games is also fairly rare, and for the same reasons. It is not usual, for example, for children to identify with animals when playing. The only exception is the horse-and-rider game; but the imitative aspect of it is very much a minor concern. There were traditionally no ghost games either, and as for war games, their recent appearance can be ascribed to the experience of the times.

On the whole, imitative play is not very common and is confined to two categories: dressing up in comical attire, and playing families.

A number of Buddhist festivals include processions of grotesque masked figures. Many of the children 'dress up' to go along with the masks, plastering their faces with soil or coloured powder and dressing up in rags, leaves, etc. Strictly speaking, it cannot be said that they are supposed to represent any real or fantastic being, but are meant more as a 'get-up' to make people laugh. It should be added that it is not an ordinary game, but an amusement for festive occasions.

By contrast, games involving family life are very common. The gap here between real life and play is minimal; little girls play at cleaning the house, cooking, selling their wares at market... all of which will very soon be their real occupations in life, for from the age of 6 Lao girls begin to help with domestic chores. No doubt at this point it is still make-believe, but a form of make-believe in which the element of escapism is minimized.

Games relying entirely on chance are relatively rare. The best known are two racing board-games: horseracing and "steps to heaven". That this type of game is uncommon can possibly be accounted for by the fact that the Lao do not use dice.

Drawing lots is done with two straws, by heads or tails using a stone with a cross on the one side, or by various kinds of morra (with the fingers or pebbles).

The only known example of a game combining chance and skill is the national card game, phay-tong. All the other games — possibly 95 per cent of all games — come under the category of competition.

A point of interest is the abundance of games demanding physical skill (throwing and aiming, throwing and catching): skittles, bowls, spinning top tournaments, battledore and shuttlecock, wicker ball game, cricket, polo, seed game. These games are in keeping with the great manual dexterity of the Lao (silk weaving, embroidery, bamboowork, silver filigree, etc.). A skilful people will naturally enjoy games of skill, but it can also be argued that such games contribute to skillfulness, and that little girls who are so clever at catching tamarind seeds are unwittingly practising for the delicate handling of silk thread.

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1. Now Democratic Kampuchea.
2. Now the Socialist Republic of Viet Nam.
4. Competition, a challenge, striving to achieve something, for one's own sake or trying with another for it, naturally includes games of skill as well as games of wit.
No less important are games of mental skill, thinking games as well as games of expression. Several games of logic are played by the Lao — some very simple, like Tiger and Pigs, and others very sophisticated, like the national card game, play-tong, which demands combinative logic, visual memory and a sense of psychology and rite.

But the games at which they excel are games of expression. Lao children know a large number of nursery rhymes — apparently casual verbal concatenations but in which one will suddenly come across a significant word or sentence. The children often make up their own words. From the age of 7 or 8 singing, ad lib singing in particular (mostly love songs) is one of the children's, especially the girls', favourite pastimes. As for the boys, most of them, for a while at least, learn to play the khene, a kind of mouth organ made of hollow bamboo stalks held together with wax. There is an ancient proverb that says: those who eat sticky rice, live in stilt houses and play the khene — they are surely Lao.

The musical and poetic education of the young Lao culminates in the custom of courtship sessions. During the temple feasts or bouns in the dry season, which is also the temperate season, girls and boys will have sing-songs, in dialogue form, reminiscent of the response singing of ancient rural China, some examples of which have come down to us in the Book of Songs. The poems sung in the courtship sessions can be either traditional or improvised on the spot.

The importance of games of expression is in keeping with the Lao's exceptional capacity for communication. Since the nineteenth century, the country's foreign visitors have been struck by the facility of human relationships there, the people's outgoingness and the richness of the vernacular, full of original imagery constantly renewed. Games clearly contribute to the development of these remarkable cultural characteristics.

Play and real life

While games are deeply bound up in Lao culture, play activities are also an integral part of life in general. When asked at what periods in the year and times of day games were played, the Lao answered: 'We play whenever we have any spare time'; 'we play whenever we feel like it'.

To be sure, there are games associated with specific feasts or festivals — the grotesque processions and erotic masquerades of the Rocket Feast, canoe races and the ritual Ti-Khi (mall game). But on the whole, festivals are only special opportunities for playing everyday games, for organizing a tournament of wicker ball, or a game of 'the blindman who breaks cooking-pots', etc. In fact, in the dry season, that is from November to April, there is a succession of games and festivals, closely linked to daily life.

It may be added that there is very little distinction between players and spectators; everybody joins in, no matter how good or bad he or she is; there is not even a particularly sharp dividing-line between adults and children.

As we have seen, little girls begin practising their courtship songs from the age of 6 or 7; the boys play around in amongst the masked figures of the Boun Phavet and the Rocket Festival; and even as recently as some twenty years ago, nobody saw any harm in their wielding those giant-sized phalluses that symbolize rain, the fertility-giver, and a source of ghoulish amusement to the sniggering girls who would run away and hide.

Sometimes, children's games imitate the more ambitious, specifically adult games — canoe racing, for instance, which the children simulate by sliding pieces of bamboo, representing canoes, along a flat surface (not on the water); and the mak Ti-khi, the famous game of polo played at the festival of That Luang, for which the children have their own, admittedly rather free, version. They are, as it were, games about games, based on a prestigious model.

But what is even more interesting is that many of the Lao games, and often some of the most common ones, are not altogether different from real-life occupations. The little girls play at making and selling cakes that are very realistically done, using mud, and sometimes their mothers will give them a little real flour to make play cakes that will not actually be eaten, and the next day they will help bake real cakes. The boys go off with home-made bows and catapults to play at hunting, and catch mice, lizards and birds; they sometimes organize real little expeditions into the nearby forest. Or else they will go fishing in the paddy-fields... but if by chance they do catch a catfish, it will go into the family cooking-pot. Where does one draw the line between play and livelihood? Society here is more fluid than European societies, and life, too, is more fluid. There is no fixed dividing-line between leisure and plying a trade, play and learning, distraction and work.

Play materials are reduced to the minimum

There are no Lao toys comparable with European, Indian or Chinese playthings, in the sense that the latter can be said to exist before the game even begins and continue to exist after it has ended. In this country, making the toy is part of the game itself and it will become obsolete once the game is over.

The most common playthings are made of:

- seeds: the beautiful black shiny seeds of the tamarind tree are used as marbles, and the nuts from a large tropical tree as bowls and skittles for the game of ba.
- banana palm: traditionally, the children have always carved horses out of banana palm trunks; more recently, they have begun to use them for making machine-guns which can produce a fairly realistic sound like a volley of shots by carving out notches in the stalk; the fibre from the banana palm is used for making puppets and dressing-up accoutrements.
- bamboo: one of the most remarkable objects made out of bamboo is a popgun which shoots small, very hard, green seeds — or, in towns, papier maché pellets — two or three metres away; pieces of bamboo of different lengths are also used for making mallets, bows, canoes, musical instruments, etc...
- lianas: these are plaited and used as skipping-ropes or as strings for cross-bows.
- coconuts: provide cooking-pots and receptacles for little girls' tea parties; two coconut shells tied to a bamboo rod slung across a shoulder can be used for fetching water from the river, as mothers do with their urns.

In fact, whatever the children can lay their hands on can serve as a plaything. Of all Lao play objects, the most common are still pebbles and mud. The little girls use mud to play at cooking and for playing shop; and the lines for board games — horse-racing, steps to heaven, tiger and pigs — are marked out on the ground.

The only lasting toys are tops, bows and catapults, if the latter can in fact be called toys, for they are as much hunting instruments as playthings. But these toys, in the country at least, and that means 90 per cent of the time, are always made by their users. Spinning tops, particularly, are precision objects, religiously carved out of hard-wood, and the pride and joy of their champion craftsmen.
The only exception is playing cards which are brought from Chinese shopkeepers at the market.

The contrast here, not only with Europe but also with the neighbouring countries, is striking. India for instance not only has splendid shuturanga and caupur gaming boards in marquetry and ivory, but the shops there are full of cheap popular toys: clay or papier maché animals, plaited straw dolls, children’s pictures, wooden crocodiles, multi-coloured horses and dolls with hair, dragon-pushchairs, etc... Even in Thailand, so similar in its customs, the country markets have popular toys for sale: kites, of course, but also doll’s tea-sets, miniature baskets, or pushchairs.

The Lao People’s Democratic Republic is thus truly an exceptional case. The children there literally play with nothing. In the villages, the little girls do not even have dolls. Even more striking, Lao babies do not have rattles. It is certainly not out of ignorance, for the H’mong and Yao tribes have them, and beautifully worked ones they are. Should this indifference to toys be viewed as a feature of Buddhist wisdom, which recommends that one should remain aloof from the things of this world? A childhood such as this, full of games but devoid of toys, is certainly excellent practice for a life of detachment.

Lao games are open games

A game may be more or less clearly defined from the outset. Chess, bridge or rugby, for example, have set rules of play and there is no call for improvisation. In some games, in addition to the rules there is some form of plot, lending added interest to the game. This is the case in the games of goose, monopoly or cops and robbers, in which a story is woven round the actual play procedure.

In the Lao People’s Democratic Republic, there are no games really governed by rules, and even though the name of a game may evoke a mental image (horseracing, catching tortoise eggs, snake and frogs, tiger and pigs...), the story stops there, and there is nothing in the course of the game to suggest, even remotely, horses, tortoises or frogs. Furthermore, the structure of traditional Lao games is not definitive. Before play begins, the players agree upon the procedure of that particular game. Each time they play, it is rather like a new game, and they invent as they go along.

There is a striking difference between Mak-Kato, the traditional wicker-ball game, in which there are only two rules — not to touch the ball with one’s hands, or drop it — and the official version of the same game, Sepak Takraw, which is played competitively throughout South-East Asia, and in which all the rules are strictly laid down. Traditional Lao games are often reduced to the simple idea of play.

There is little competitive spirit in Lao games

Although certain Lao games are played for money, games are seldom very competitive. There is never any dispute or even arguing over the outcome of a game. They play for pleasure and not to win. The reward, if any, will be a friendly or amusing forfeit: the loser will have to give the winner a glass of water or carry him in triumph on his shoulders.

Sometimes the outcome of the competition is deliberately rigged. This is what happens in Ti-Khi, the great mall game played at the That Luang festival. Formerly, one of the teams was composed of young men of humble origins, and the other of sons of dignitaries; and traditionally on that day — there was no harm in making an exception once a year — the notables would let the people win.

Games in Lao schools before 1975

Over the past fifty years, formal Lao education has been a foreign institution imported from abroad, with foreign structures, curricula and methods. School was thought of by both teachers and pupils as an independent entity without any connection with real, everyday life; as it was lived. It flowed quite naturally that in artificial surroundings such as these, there was no play activity whatsoever, play being profoundly rooted in the lives of the Lao people. Children therefore played before and after school, but the classroom was the very antithesis of play and learning though play was out of the question.

The role of play in a Lao child’s education was none the less substantial, but it had nothing to do with school. What in fact happened was that play and the pagoda continued to provide a child with the national culture that school was no longer able to give him.

As we have seen, play is above all a training in physical skill and manual dexterity and, it would seem, a highly effective one. Play is the first step towards occupational training: learning about domestic and market place activities for the girls and learning how to hunt and fish for the boys, but also learning manual work through toy-making. Play is above all a school for social behaviour. Because of the relative lack of competitiveness, it does not stimulate a craving for personal gain; because there is practically no escapism involved, it does not encourage dissociation from real life; and because there are no lasting toys, it is in keeping with the ethic of unworldliness. Play therefore helps the young Lao to integrate into the group, in which the major problem is much less to outstrip the others than to be at ease with them, and less to have possessions than to be at ease with oneself.

The cleavage between play and school was not the rule throughout Lao territory, however. Over the previous fifteen years, a school system of quite a different nature developed in the north-east of the country, in the area controlled by the forces of the Patriotic Front; a national, revolutionary system working with resources available locally; local materials and village labour to build the schools, recently literate farmers and soldiers as teachers; curricula revolting around the problems of political and working life, with national customs and habits setting the style and determining the methods used. An environment of this kind would obviously be much more conducive to play. The children do not resort to educational games in the sense of the ready-made games that are to be found on the Western market today, but the spirit of play pervades education as a whole. The most interesting example is teamwork: the pupils are divided into groups of ten (and sub-groups of five) for intellectual, civic and physical education and for gardening activities; the pupils are not given marks individually but as a team. Personal competition has given way to group competition and in this way young people are faced with a form of social organization at school similar to their play society, and in that context, the vitality of play can serve as inspiration for lessons, sport, gardening and discussions. In the same way, the emphasis on practical manual work (the children grow the vegetables they eat, help in the building or at least the upkeep of the school...) reinstates the school as training for real life.
Finally, in the part of the country controlled by the Patriotic Front, there was much more emphasis on physical education than in conventional schools, and as a result, through physical exercise, schools provided the setting for all kinds of games involving action, skill and strength, most of them traditional.

Prospects for teaching through play in Lao schools

Teaching through play does not simply mean systematically introducing into the classroom the games that children play out of school.

The study of children’s games is primarily useful in supplying information on the processes of non-formal learning in a given population. For a child at school is not fundamentally different from a child at play. A thorough acquaintance with the child at play will give an idea of what his attitude in class will be, and provide insights as to his willingness, or reluctance to do certain things, or his indifference to them, as well as to what he will find easy, or very difficult to grasp.

But apart from the contribution a study of games in a society can make to the choice of a potential teaching approach, it can also help make the selected approach more lively by infusing school activities with the spirit of play.

Adapting certain Lao games to teaching

Alphabet or number games. The picture game mak houp, in which the player wins whichever pictures he manages to turn up without moving the others, could be played with cards representing letters or figures. The object could be, for instance, to complete a word, or to make up a total figure, or a series of figures or letters.

And again, in the sandal game, banknotes could be replaced by numbers, making sure that the highest numbers were the most difficult to reach. The winner would be the one who totalled the highest number of points.

Skittles and games of chance in which each player moves forward along a marked-out course, such as the little horses game or the steps to heaven, are good adding exercises. They could be encouraged by organizing contests. The same games could be used to illustrate the various stages in a social process — starting a co-operative, beginning work on it, etc...

Games of skill or of mimicry. These games can be used systematically at kindergarten level. They can be enlarged upon, especially imitative games confined at present to tea-parties and shop, by introducing other simple situations inspired by the social and economic life of the village.

Games used as a starting-point for observation, including scientific observation. The spinning top, for example, provides a good basis for explaining gravity and static or dynamic equilibrium, and also for a study of relative motion. The 'four corner' game can be used as a basic exercise in chemistry — each child could represent an atom, and the idea would be to form a given molecule; players unable to make up a combination would be the losers.

How games can contribute to the rational choice of a teaching method

As has been said above, this is perhaps the main advantage of a study of games.

Since Lao games are fairly non-competitive and are based more on team spirit, a teaching method not involving competition or only moderately, on a group basis, would therefore have some chance of success. It would provide opportunities for reciprocal learning, for working with small groups of pupils, for assuming responsibility and evaluating instruction on a collective basis.

Lao games are usually flexible, with no hard-and-fast rules. This characteristic would suggest that teaching ought to be geared to creativity and initiative.

There are few toys that last, and those that do exist are nearly always made by the players. From this it can be inferred that children in Laos can be taught without sophisticated equipment and could make at least some of the experimental and demonstration materials themselves.

Finally, Lao games are close to real life; there is no absolute distinction between leisure and livelihood. This makes it possible to establish a close link between productive manual work and theoretical learning by setting up, for example, farm schools, school workshops, school co-operatives and so on.

The contribution of games to more active teaching in schools

Among a people in whose lives leisure and work are intricately interwoven, it is only natural that the spirit of play should permeate teaching in schools, so there should no longer be any discontinuity between the principles governing play and those of formal learning.

In this way, productive school activities as a whole could be geared to fit into a broader framework of mutual exchange which would, as it were, be a sort of permanent game. The various types of institution would thus be drawn into a system of non-commercial economic relations which would serve as excellent training for adult economic life.

Practice in games of expression might be conducive to a form of permanent discussion, with each child or group of children taking it in turns to speak, roles distributed, etc... These activities could be enlivened by contests in various subjects (mathematics contests, for example).

Conclusion

Although the importance of these prospects should not be overlooked, it must not be forgotten that the most important objective for teachers must be to respect and encourage children's and young people's traditional play patterns by all possible means. In the Lao People's Democratic Republic, this play pattern appears to have attained a degree of ecological equilibrium that makes it a far from negligible and ever topical feature of life in society.

1. The sandal game consists of trying to hit banknotes arranged in a circle by throwing a rubber sandal at them.
### INVENTORY AND CLASSIFICATION OF RECORDED LAO GAMES

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| GAMES OF CHANCE                   | dexterity       | *Ling Kouang Houang*        |                          |
| GAMES COMBINING THOUGHT AND CHANCE| suppleness      |                             |                          |
| GAMES OF MIMICRY                  | race            |                             |                          |
| GAMES COMBINING MIMICRY AND SKILL | strength        |                             |                          |
| GAMES COMBINING VERTIGO AND SKILL | thought         |                             |                          |
|                                   | racing game     |                             |                          |
|                                   | racing game     |                             |                          |
|                                   | card game       |                             |                          |

### EXAMPLE OF A GAME OF CHANCE

1. **Name of game:**
   1.1 in the vernacular: 333
   1.2 phonetical transcription: *Souang Ma*
   1.3 approximate transcription: *Souang Ma*
   1.4 translation: horseracing

2. **Description:** Three concentric squares are marked out on the ground, with a perpendicular and a horizontal line (medians) drawn through the middle of them. Each player has a horse represented by a pebble of a distinctly different colour or size from those of the other players. The idea is to move the horse along from a starting-position (0) on each player’s median past all the points of intersection between the medians and the squares, and all the corners until it reaches the middle square (numbered ‘25’ here for clarity). The game is played anti-clockwise.

The Lao do not use dice. Instead of dice-throwing, a rather complicated and highly ingenious system is used. First of all, the players draw lots (with wooden sticks) to see which numbers each one will have. The person with the shortest or longest stick (agreed upon beforehand) will be player No. I and is given three numbers: 1, 5 (1 + 4) and 9 (5 + 4), counting the players coming after him. The player on the right of I will be II and will therefore have numbers 2, 6 and 10, and so on...

Once everyone has memorized his numbers, the game begins. Each player has three small pebbles in his hands, behind his back, and at a given signal holds out his hand containing the number of pebbles of his choice. Supposing the total number of pebbles comes to 7 (1 + 2 + 1 + 3) — then it is player No. III (whose numbers are 3, 7 and 11) who wins and can move his horse along one point, that is, from point 0 which is in front of him to point 5; the next time round, if the total comes to 3 or 7 or 11 again, the same player will go from point 5 to point 6, etc... When he...
and back to 13, which will take him on to 21 on the third square, then on to 22, 23, 24, 17, 18, 19, 20 and back to 21, and from there he can move to the centre (25) and win the game.

Likewise, player No. 1 will go from 0 to 1, then to 2, 3 and so on. When he gets back to 1, the next time luck is with him he can go on to (9) on the next square, etc...

However many pebbles are held out at each turn, the player can only move one point at a time; if he lands on a spot occupied by another player, he takes the previous occupant's place and the latter must go back a point. It is therefore quite a slow-moving game, but is kept lively by the variety of moves.

(In the Lao game, the points are not numbered)

3. Players.
3.1 Sex: boys or girls.
3.2 Age: 11 upwards and adults.
3.3 Ethnic group: Lao.
3.4 Structure of the group: personal success and competition with the other players.
3.5 Number of players: 4.
3.6 Factors determining co-optation: as opportunity arises.

4. Rewards, penalties: adults usually play for money.

5. Origin: originally Indian or Tibetan; the concentric squares are a throwback to mandalas. The game of Souang Ma formerly had a para-religious role in pseudo-Brahman rites known as Pham rites, of which the baci ceremonies (propitiation welcoming or leave-taking rites) are the best known survivals.

6. Time of year at which the game is played: any.
7. Place: underneath the house (in the rainy season) or out of doors.
8. Time: any.
9. Duration: half an hour or more.
11. Skills involved: adding up quickly, memorization of figures, sense of rotation and itinerary.
12. Use in teaching:
12.1 at present: none
12.2 potential: this game could be the basis for all sorts of arithmetical or topological exercises.

**PLAY ACTIVITIES IN INDIAN EDUCATION IN THE 1st AND 2nd GRADES**

The following text has been adapted from extracts from a report submitted by the Department of Pre-primary and Primary Education of NCERT (New Delhi, March 1974).

**General consideration**

Primary education is the foundation of all education. To make primary education effective it is necessary to provide proper physical facilities, competent teachers, and an appropriate curriculum, bearing in mind the sociological and psychological needs of pupils. In addition, teachers should develop suitable curriculum material and adopt teaching techniques which will make the learning process an enjoyable experience. This point is of particular significance for children in the first two grades who have recently entered the formal school atmosphere from an informal home environment. Such children generally find it difficult to adjust to the new environment unless it is made interesting for them.

To make teaching a pleasant experience for children in the first two grades, activities must be planned with due regard to their characteristics. Children in this age-group are incapable of formal reasoning. They cannot appreciate abstract ideas and are attracted by concrete and tangible things. They can only concentrate on a particular aspect for a short while. Curiosity is a dominant characteristic of children at this age. They like to acquaint themselves with the phenomena around them. They are full of energy and they find it difficult to sit quietly for long periods. They love to be involved in different types of activities. Their minds are seldom at rest. There is a considerable need for recognition and appreciation even for small achievements.

Teaching at this stage will be made more meaningful if the teacher creates an informal atmosphere in the classroom. This can be achieved if the teaching is geared to play-way activities.

Realizing the importance of this approach, a programme has been developed by the Department of Pre-primary and Primary Education to encourage teachers to develop curriculum materials and to note and utilize play-way activities being followed in the primary schools. To begin with, the programme has been limited to grades I and II. Later on, it may be extended to other classes in the primary schools. Criteria for selecting a play-way activity are as follows:

i) it must be relevant to the prescribed curriculum;
ii) it must help encourage informal teaching and provide for adequate pupil participation;
iii) it must help in developing desirable values, habits and attitudes in the pupils;
iv) it must have been practised by the school as a regular feature and have yielded good results;
v) it must not be unduly expensive and be suitable for use in an average Indian school.

Figure 25: Little girls in Bijapur (Central India) on a swing made out of two bicycle tyres fastened to a bar. (Photo: C. Lombard)
The material required consists of paper or cardboard. Two lines are drawn in the playground to represent a stream. Fish are cut out from cardboard or paper, each fish having a number, and are scattered about in the stream. Pupils are divided into small groups with one pupil as group leader. The group leaders instruct pupils in their respective groups to bring fishes bearing specific numbers. After bringing back the fish, each of the pupils writes the same number on his slate. The teacher keeps a continuous check on the slates with the help of the group leaders.

**Number race**

This method is being used with grade I of the Central School, G.C.F.Estate, Jabalpur (Madhya Pradesh). The main purpose is to enable pupils to recognize different numbers, and to develop presence of mind and quick reactions.

The teacher writes a few numbers on the floor in no particular order. For example:

```
6 0 1 4 10 2 10 2 4 5 7 9 8 5 8 3 9 0 12 4 6 9 7 10 2 1 2 3
```

The teacher then divides students into small groups and asks them to run around the room. As they do so, the teacher calls out a given number, e.g. six. Pupils standing on that number are the winners and those on other numbers or unable to recognize that particular number are out of the game. Winners in all groups repeat the activity until the scheduled time is over.

For evaluating achievement, pupils are given papers with cyclostyled numbers. They are asked to underline numbers called by the teacher. In this way, the teacher can see how far the pupils recognize different numbers.

**Word game**

This activity is conducted in grade I of the Government Model School attached to the State Institute of Education, Allahabad (Uttar Pradesh). The teachers make lists of words which pupils in grade I are expected to know. The letters which form those words are then written on small cards.

The pupils are divided into groups and the cards are kept in the middle of each group. Each pupil picks up a card and copies the letter written on it onto his slate. After the pupils have written a certain number of letters, the teacher calls out a word from the list prepared earlier and also writes it on the blackboard. Those pupils who have the appropriate letters come to the blackboard and stand in a row so as to form the required word. A child loses if he has a letter needed for the word called out and does not come up to the blackboard, or if he fails to stand in the correct position, or if he does not hold his slate properly.

**Utilization of leisure time**

The following activity is employed at the Modern School, Humayun Road, New Delhi-3.

Some bright pupils in junior classes complete their assignments faster than the rest of the class and sometimes disturb other pupils and create difficulties for the teacher. To overcome this problem, each class has some selected story books, magazines, educational toys etc. Whenever a child finishes his assignment ahead of the others, he is free, as soon as his work has been checked by the teacher, to read, draw, paint or play with educational toys.
This approach enables pupils to make good use of their leisure time and helps teachers to maintain a quiet and creative atmosphere in the class.

PLAY AND TEACHING IN THE UNDERPRIVILEGED SOCIO-CULTURAL STRATA IN PERU

The following account is based on a lengthy report compiled in Peru in 1975 by G.A. Carmela Izaguirre, a graduate in education and social sciences. It included a study of games and toys in Peru, historical references, an inventory accompanied by comments on certain types of games, an outline of recent laws on education, as well as an account of experiments, a sociological study on the status of children of Indian origin and a list of events, exhibitions and available literature on the subject.

Problems of play and playthings in Peru today

No systematic study of play and playthings in Peru has been made to date. There are no anthropological works on a phenomenon which is as old as Peruvian man and his culture. There have only been a few fragmentary and isolated attempts, but they do not consider play in the actual context of the realities of Peruvian life, its historical development and the potential role of play in children’s education.

Since Peru is a land of mixed racial origins, one cannot really speak of strictly autochthonous games. With a few exceptions, most of the games played by Peruvian children in the three regions of the country (the coast, the sierra or mountains and the selva or forest region) are of Spanish origin.

Spanish games and toys were introduced into Indian America at the time of the conquest; they were adopted into indigenous culture and given local names to make them easier to appropriate. But basically the imprint of Spanish culture on these games is still intact, that culture which was the vehicle of the European values of the period.

An idea of what games were played in ancient Peru can be obtained from historical accounts. As for the Spanish games that were ‘hybridized’ over the long colonial period, they are now tending to disappear as a result of a series of socio-economic factors.

The massive exodus of indigenous peoples to the capital, in search of a higher standard of living, the ensuing growth of the urban population there, the need to find more space for housing, and finally, new approaches to town planning put an end to the old Lima dwellings with their spacious gardens, patios and small family kitchen gardens, where the children would play in the afternoon and evening and during the summer holidays. They have been replaced by parking lots, shopping centres and housing complexes. Children no longer have anywhere to play. Children’s rounds are gradually disappearing altogether, even in primary schools where they used to be so popular.

The old games have fewer and fewer adepts; friendly games are gradually giving way to sport, games involving inventiveness and natural grace to violent, fast games like basketball, volley-ball and football. The growing encroachment of foreign games and toys, with the support of the mass media, is supplanting local games; hand-made toys that were primitive but beautiful in their simplicity, are being replaced by unbreakable soulless plastic toys which leave no scope for personal creativity. The growth of the toy market is rapidly putting local craft objects out of existence, and they, too, are beginning to be turned out industrially.

We conducted our survey among pupils in a centre for basic vocational training in an underprivileged part of Lima. Of these pupils, 70 per cent come from mountain areas and attend evening courses; 70 per cent are in domestic employment. At the same time, interviews with a sample group were held in a university demonstration school. The replies from both groups tallied, both as regards preferences for certain games played nowadays and memories of the games that used to be played and awareness of their gradual disappearance.

A massive-scale study of games in the different geographical areas and social strata of Peru would be useful. Carried out by teachers, anthropologists, psychologists and all members of the community, it could be instrumental in giving greater prestige to the authentically Peruvian heritage, freeing it from the foreign models that stifle its creativity and liberty.

Historical factors

Data on games in ancient Peru are extremely rare, and the information we do have is taken from accounts by chroniclers who took very little interest in this question, and consequently hardly ever mentioned it. The earliest chronicles, in particular those by Jerez and Estete, yield no information on the subject.

It was not until the eighteenth century, once the Conquistadores had imposed their language, religion and customs on the people, that the first references to games were made. They are extremely confusing, for what they describe as indigenous games are in fact Spanish games that the Indians had adopted and called by Aymara or Quechua names.

The chroniclers do mention some games, if in somewhat vague terms: chess, and quoits and skittles called siticasitha and sincusitha respectively, and toys for very small children.

As for pelota, which is so common today, playing fields have been discovered by archaeologists in Mexico and Central America, yet no vestiges of this kind have been identified in Peru. It may be assumed that pelota as a game was brought into Peru in the early days of the conquest and became part of the everyday life of the Indians under its vernacular name.

The children played with the liwi, a sort of three-string cord with a little knob on the end of each string. Huamán Poma de Ayala gives us an idea of this game in an engraving representing a child of about nine brandishing a liwi to frighten away birds.

As regards children’s games, there are references in some chronicles to various games involving physical skill and a sense of balance: rotating head movements, human pyramids, pirotuettes and jumping.

Games involving the use of beans would appear to go back to the pre-Columbian era. A mulatto Inca chronicler writes in this connection:

‘Apart from edible beans, there are others which cannot be eaten. They are round and look as though they are made from turquoises; they are multicoloured and the size of a chick-pea. They are commonly called chuy, and there are many other names for them, some ridiculous and others appropriate, but I shall not go through them all so as not to bore the reader. They have a multitude of uses in both children’s and adults’ games, all of which I remember playing myself’.
It will be seen further on in this study how many different games are played with beans even today.

To conclude this brief survey of Inca games and toys, we may refer again to the account written by Huamán Poma de Ayala, whose drawings depict the stages in the life of an Inca boy and girl. The little girl does not have a doll, so common a feature in Western culture, but is engaged in various agricultural pursuits and, once she has grown into a woman, can be seen holding her disstaff.

The last pictures of the little boy show him playing with a top, his only toy; in another picture, a nine year-old child is brandishing a lliwiri, and in yet another, a child is holding out a net to catch birds. It might be inferred from this that the child was actually playing with these objects, but that is not so. Children were integrated into working life from an early age and, like the physically handicapped, had proper tasks to perform within the community. The children with their llus and bird nets were not engaged in a recreational pastime, but were chasing away the birds so that they would not destroy the freshly-sown crops. In the methodically organized life they led, children most probably had no time for play; whence the absence of toys.

Even today in the Peruvian mountains, the children play with young animals, baby llamas for example, decorating their ears with wooden pompoms and calling them pet names. Both boys and girls help their parents work in the fields and learn the techniques of family handicrafts from an early age. The children play with clay, pebbles and whatever odds and ends they can lay their hands on. They build little cattle pens out of dried mud, with stones for cattle, and copy their parents in all their domestic tasks.

Indian children today

In his study *El niño indio actual y los factores que modelan su conducta*, José María Arguedas analyses the economic and social conditions which have affected the Indian peoples and especially their children since the colonial era. Isolated as a result of the social barriers imposed upon them as an inferior caste, the Indians have preserved nearly all their ancestral pre-Hispanic customs, appropriating all the features of Spanish culture they were allowed to assimilate. By adopting a large number of new instruments, they thus improved their labour resources and enhanced their capacity for artistic expression. For example, they mastered the use of the plough, and introduced into their economy certain plants of considerable nutritional value such as wheat, beans and barley which, like maize, became an object of religious worship. They learned to play European musical instruments, more sophisticated than their own traditional ones, particularly the harp and the violin.

'Only a few decades ago, the Indian had no hope of ever ceasing to be regarded as an "Indian". In this respect, the Republic did nothing to improve his status. On the contrary, by revoking the laws which guaranteed his right to use inalienable common land, this régime allowed him to be ruthlessly robbed of his agricultural and pasture land on a massive scale.

'An Indian child knew that he would die an Indian. He knew from the age of reason what his occupations would be, unfailingly, for the rest of his life. His future, like that of the rest of his caste to which he belonged, was rigorously mapped out. Furthermore, because of his status in society, the Indian child, like the whole of his caste, was looked down upon and often suffered cruelly at the hands of those who wielded political and social power.

'The games played by the Indian child nearly always took on the form of a sort of training for his future occupations as an adult. It may be said that they were games of a functional rather than a purely recreational type. They were copied from adults' work: ploughing, herding - the cattle being represented by small stones or insects and put in little pens, roughly or carefully constructed of dried mud; building houses, aqueducts, kilns or mills. In the district of Huapaca, at the hacienda of Huayu Huayu, I and another younger child (I was about 13) who was my "assistant", built an aqueduct which took the water from a furrow in the kitchen garden along the side of a "hill", crossing "ravines" and "rivers" over bridges made of tiles and agave leaves - all in the space of a few days. We made a waterfall, channelling the water properly, and a stone water-mill; my little assistant made the millstones - the bedstone and the runner, the mill-wheel and its axle and even the block to support the axle. He placed the stones exactly as they are in a real mill. He let the water go and we watched it flow right up until it entered the "penstock".

'At this point my friend flicked at the blades of the wheel, the water splashed up against the archway and the mill began churning away rapidly between the walls of the "plant". I gazed with stupefaction at this "toy" and the sight of it filled me with joy that knew no bounds. But Don Manuel Maria, the old owner who had a very low opinion of me, dismissing me as an "idle daydreamer", discovered the mill the very evening of the day we inaugurated it. He demolished the frail aqueduct, the waterfall, the two millstones, the vaulted archway with the wheel inside it sending up a shower of droplets; he kicked them over, trampling them underfoot, stopping fit, it may be said, to make some sarcastic comment about such an "extravagant bit of nonsense". I have always hated the old miser for it. The little native boy ran away and huddled at the foot of a big custard-apple tree, doing his best to keep out of sight. I wept bitterly when the old devil went away. My companion did not even glance over in my direction. He fled

1. Published by the Consejo Nacional de Menores.
ahead of the owner who walked over towards the garden gate and disappeared from sight. My friend refused to come back to the house and hid from me... Several days later the contract of his father, who was employed at the hacienda, expired, and he left with him. I think he had been more frightened than upset.

'The games of Indian children in remote monolingual communities are a way of preparing the children for life, not only biologically but also socially and practically. They are part of their education, which is a very haphazard affair even when they go to school, for school prepares them for a very different way of life from the one they will lead in their own social environment.

'But traditions are changing as far as this aspect of the life of the Indian communities is concerned. The tight confines of caste have begun to open up, especially in communities where there is an adequate amount of land. The young Indians in these communities are becoming a new type of mixed breed that anthropologists have named cholos. They have not broken with their native culture and are still unfamiliar with modern, Western-type urban culture. But they are feverishly building schools and are endeavouring to learn to read and speak Spanish. As in the case for religious and magical beliefs, a subject on which too little research has been done, the Indian child will take part in the games he is taught at school (rounds, hopscotch, football, etc.) but will carry on playing the traditional games. He is learning to live in an environment in which the conflict between his own customs and the modern world will become increasingly acute. But, for lack of any adequate studies on present-day Peruvian culture, there is no telling, with any accuracy, how this conflict will be resolved, or in which direction. However the inevitable and necessary conflict, the massive uprising of the Indian people, has already begun its inexorable march forward. The Indian children are the ones who suffer most from this conflict and the contradictory forces pulling them apart today will, perhaps, give rise to a generation of men fired with formidable energy to create and reform.'

Inventory of games currently played

The games we have studied are played in the three major regions of the country: the coast, the mountains and the forest. All of these games are currently threatened by the invasion of industrially-made toys and foreign games disseminated through the mass media.

Rounds, nursery rhymes and responsory rhymes occupy an important role in much of their play. The words often hark back to the age-old imagery of saints, kings and demons. The traditional figure of the woman, 'beautiful, gentle and engaged in household tasks' frequently enters into them, with variations according to the regional context.

Certain types of game deserve special attention, profoundly rooted as they are in Peruvian culture.

GAMES OF CONVENTION

Games governed by rules: These imply a tacit code of play, usually between two players, non-observance of the rules being punished by various forfeits or penalties. Here are two examples:

Saturday's law

On Saturdays, the collar of one's jacket has to be turned up. Whoever does not do so receives a blow on the back of his neck to the cry of 'Saturday's law'!
Skipping games

Skipping games have been popular in Peru for a very long time, although it cannot be stated with absolute certainty that they are originally Inca games. As many as nine types of individual skipping games, five for two children together and four for a whole group are to be found, and each one has several variants.

Swinging the rope

Six or more players stand round in a circle, with one person in the middle swinging a 4 or 5 metre long rope with a weight on the end, which each player has to jump over as it comes round.

Bean games

Although Peruvian children are familiar with marbles and bowls, games in which beans are used are a living testimony to the heritage of ancient Peru.

Beans of different colours are used. Some of them are plain, others of two or three different colours, and some are also mottled, speckled or streaked. They have different names depending on their colour and particular type of marking: lenguachos (little tongues) are plain-coloured with a white spot at one end; raquitas (little cows) are of two colours with large patches on them similar to the patches on cattle; alfaferos (a name that suggests lucerne) are cream or yellow with black, blue or purple spots; recoletos have black spots on a purple background; chancacos (a name suggestive of sweets made from a mixture of maize and honey) are brown with yellow flecks or spots; conejas (female rabbits) are purple and are covered with black spots. The largest beans are called tirallo (from the verb tirar, to throw) and are used for throwing at the others. To turn ordinary beans into tirallo, the children rub the inner side of the beans (where the radicle sprouts from) against a stone until they are quite smooth and then stick them together with a toothpick. To do this, the children rub the entire surface of the beans against a stone until they are quite smooth and then stir them together with saliva. Pilchas are round beans and are highly prized for their rarity. The action of flicking one bean at another is called tincar, a word of Quechua origin, the stem meaning "to meet", or "to strike an object against another".

The impact as one bean hits another is called chontis (a name suggestive of chonta, a hard wood palm-tree used for making truncheons).

Beans are used in a host of different games. Here are some examples of these games which unfortunately are dying out.

A los montones (heaps). Each heap is made up of three beans forming a triangular base, with a fourth on top. Each player makes the same number of heaps. Let us say, for example, that there are two players with three heaps each; that makes six heaps set out in a line in front of the players. A parallel line is marked out about a metre away — that is the starting line not to be overstepped when throwing the tirallo at the heaps. At the beginning of the game, each player shoots along the ground from the spot where the heaps are and tries to overshoot the line marked out opposite. The one who gets his tirallo furthest over the line is first to start shying at the heaps. If he does not hit any of them, he forfeits his turn and it is his friend's turn to try. But if he hits one or several of the heaps he is allowed to carry on throwing until he misses. These successive throws are made from the spot where his tirallo landed. It is forbidden to lean on anything or touch the heaps that are still standing, and if you do so you forfeit your turn. Each mound hit by a player is taken by him.

Card index

Forty games were methodically recorded on filing cards. It was thought that it might be of interest to copy out two of these cards here. One shows the important role of language in playing a group game, and the other illustrates a survival of the very old game of tops.

First card

1. Name of game: The king's son
2. Description:

The participants sit on the edge of a pavement or a long bench with their legs stretched out. The group leader recites a text, punctuating each syllable with a tap on each player's knee. The player who is the last to have his knee tapped has to draw up his knees promptly. He carries on chanting until all the players are sitting with their knees up. The last with his legs still stretched out has a forfeit. The person saying the words goes back and forth in front of the players, several times if necessary.
The king's son came past here, eating peanuts and took one to every one of his opponents. He gave one to everyone except me, leaving one for himself. Then he drew lots, and one of them put his top in the middle of the ring. His opponent tried to push it out of the ring. If he succeeds, the loser has to give him two glass marbles or figurines from school albums.

3. Players
3.1 Sex: male
3.2 Age: variable, 8 to 16
3.3 Ethnic group: coast, mountains, forest
3.4 Group structure: group leader, alternate roles
3.5 Number of players: variable
3.6 Factors determining co-optation: age, family, school, neighbourhood
4. Structure of the game: the rules vary in different geographical regions
5. Penalty, object of the game: doing better than one's rival, prestige
6. Origin of the game: traditional, imported, mixed
7. Period at which game is played (determined by season in the year, social life)
8. Place: school, street, home
9. Time of day: any free time
10. Duration: variable
11. Practice: currently played or abandoned
12. Play function: mimicry, competition, vertigo, chance.

A different version played in the mountain region. The players usually sharpen the tips of their tops for greater striking power. Another version consists of playing with coins instead of tops. A coin is placed in the middle of the ring and the opponent tries to push it out of the circle with his top and if he succeeds, wins the coin.

Official trends

Reference has been made several times in this report to the far-reaching deculturation of the most underprivileged social strata in Peru, and especially the peoples of Indian origin. The rapid rate at which the rich play heritage is dying out has also been stressed.

It was under these circumstances that a new general law on education was passed in March 1972, resulting in the publication in 1973 of a report on “Games played by children under three years old”. With the publication of “Bases for Educational Action in Primary Education”, attention was drawn to the need to develop sensorimotor and creative activities among 2 to 5 year olds. In 1975, the primary education authorities pointed out that it appeared, “after studying the question, that play, in the same way as cultural traditions and community resources, is regarded as an important factor to be taken into account in proposing activities to teachers, with a view to attaining the overall and specific goals of primary education”.

The educational value of activities such as shadow plays, acting games and folk songs and dances was referred to, and provision was made for the setting up of play centres.

In this new perspective, the National Pedagogical Institute for Primary Education (IPNEI, headquarters: Lima), which provides primary teacher training, has drawn up general guidelines for games that leave the teachers full scope to diversify these activities to suit the specific characteristics of the school or geographical region in which they are working.

One issue of IPNEI Bulletin contains an article on future teachers (female) attending courses at IPNEI who have worked at the “Fun in the Sun” play centre.

1. No. 5, 1975.
using the methods prescribed by IPNEI as regards games, songs, the plastic arts, puppet theatres, toy-making from waste materials, etc.

At IPNEI, these teaching methods are applied to primary school pupils: musical instruments made out of scrap materials (broomsticks, tin cans, small pebbles, rattles made with bottletops), teaching aids made out of local materials (sea-snails, pebbles, seeds, dried flowers, food products such as rice, vanilla, quinoa, wheat, etc.).

At the same time, the law on compulsory primary education was passed, and an official exhibition was held with three show-cases containing toys made from waste materials from each of the different regions (coast, mountains and forest), by primary school pupils, teachers and fathers. Unfortunately, what had been made by whom was not specified, which was somewhat confusing. It would appear that a large number of these toys of extremely simple design were made by schoolchildren of about 5 years of age.

In addition, the National Television Institute (INTE) produced a series of weekly programmes in cartoon form for children between the ages of 3 and 5, designed to make both children and their parents more aware of the goals set forth by the government. At the same time, the National Institute for Leisure, Physical Education and Sport, recommending a "revival of forgotten games", published the rules of ancient or modern sports and introduced or encouraged the playing of traditional games in school playgrounds and sportsfields - team games, sack races, etc.

Due to lack of funds, however, these new trends in official thinking do not seem to have made the desirable headway.

Pedagogical experiments

It is of interest in the circumstances to mention two teaching experiments carried out by teachers acting of their own accord.

The first concerns an experiment carried out by Catalina Blanca Garbarino. This teacher worked for two years with two groups of children from different social environments. Her aim was ultimately to get the children to compose words and music for their own songs. By way of questions to the children, a discussion arises on a given topic to enable them to conceptualize it and prove their command of language.

The same method is used for the musical theme. It is important for the children to "imagine" what music, melody and instruments will go to make up the song composed together, and for them to feel that the song belongs to them and the music and orchestration is their own. The children begin the discussion, thereby giving vent to their creative ability and improving their language skills. Through dialogue, their intrinsically self-centred personalities will mature and their own opinions will be strengthened, for by listening to other children's points of view they not only enhance their own knowledge but at the same time discover the resources of other people's minds.

The aim of this method, which has the child as its starting-point, is to develop sociability. Its driving force is the group, by which each child is respected and accepted.

In the musical sphere, it is surprising to see how faithfully the child succeeds in reproducing the basic sounds things make. For example, what might be the sounds of a house? According to the atmosphere he senses in a house, he will reproduce the appropriate musical tonality, showing once again that his psyche is capable of capturing the harmony of an environment. It is an experiment one can try out for oneself or with other people, alone or in a group.

The object is to induce the child to "sing out" his own experiences in his own words, to a melody that will express them for him. This is accomplished through prompting the child to give free rein to his verbal and singing ability. He is allowed to give outward expression to his creative and artistic sense. By doing it this way, he will develop a critical attitude to what he sees and hears, will improve his sense of judgement and will be encouraged to observe and to discern, as he discovers the treasures of the world around him, its symbolism and poetry.

Blanca Garbarino worked with two groups of children. One, which we shall call group A, comprised six children between the ages of 6 and 11 from the working-class neighbourhood of Surquillo, all from State schools dispensing a basic, general-type education. They composed songs entitled: The little cooking-pots, Bread, The miner in my country and Oil. All the children in this group were
extremely friendly and spontaneous. The songs were simple and to the point and in a sense described the world of each child. Thus *The miner in my country* originally started out from comments about the “Olivero Peru” building, in response to questions asked by Blanca Garbarino. Having talked about the problem of the miners, their contribution to the country’s wealth and so on, the children decided they ought to compose a song about it.

The second group, B, was composed of five 12-year old children from a middle-class background, all in grade 1 in special education centres (EPS). Their songs are much more elaborate and include titles such as *Brothers, Children of the World, At the bottom of the sea Garhrino.* Having talked about the problem of the miners, their contribution to the country’s wealth and so on, the children decided they ought to compose a song about it.

Both groups composed their songs during afternoon classes. Each song took several days to compose (working out the rhymes, music, rhythms, melody and instrumentation). Most of the instruments were made by the children, using tin cans, spoons, rattles and various objects which made what they felt were suitable sounds.

The second experiment was carried out by Leon E. Salis Vivas. After an introduction by way of a prologue, this teacher proposes a series of short texts — short poems, nursery rhymes, riddles — intended to convey certain facts (science, nature study) to the children in a traditional and informal way. It will be recalled how important this type of text is in Peruvian play activities, as can be seen in games involving reciting or chanting (see card on *the king’s son*) and in riddles, particularly in the forest regions (see pages 36-7). Salis Vivas describes his work thus:

‘This work is the result of a series of experiments with children between the ages of 4 and 6. A great deal of care was taken over it, and we dedicate it to all children of that age, in the hope that their games and amusements will develop hand in hand with their knowledge of the world around them, in other words with the growth of their intellectual maturity. With this aim in mind, we tried to find incentives that would stimulate their imagination and their reasoning power, in order to help them to understand the world we live in.

‘With this in mind, we should like to remind pre-school and kindergarten teachers that they have a very useful role to play in this process of explaining the world to children, and that they must consequently select the games and amusements they will propose to the children with the utmost care. Mothers must also be reminded of their decisive role in their children’s intellectual development.

‘In conclusion, what we proposed to do was to encourage the children to think for themselves and not simply provide them with mechanical games and mere “entertainment”. We rely therefore on the children themselves to add vitality and depth to our work.’

Here are some examples of texts used by Salis Vivas.

**About animals**

It can’t see well in the daytime
it can see very well at night
it likes walking on rooftops
and when it is hungry it says: miaow! miaow!

(a cat)

I belong to the monkey family
My first name is GO, my second is RI
and my last name is LLA. Who am I?

(a gorilla)

**About plants**

Do not LET US go without water
(lettuce)

We like being put on tables
or shown off in special places
we can sometimes even be made out of paper
and we are welcomed in the spring
(flowers)

**About people**

He is your daddy and mummy’s son
He is your uncle’s daughter’s cousin
Your cousins call him cousin
What relation is he to you?

(my brother)

It flows through your body
It is red
if you prick or cut yourself, it comes gushing out
(blood)

**About things**

I am made of leather; with me you keep your trousers up
(belt)

I am a bird made of steel
I can fly higher than the highest hills
But if nobody is there to steer me I cannot fly
(aeroplane)

It is round and floats in space
We live on it
and animals and plants do too
(the world)

It’s a four-legged animal with very long ears
Children who are silly are sometimes called one
(ass)

**AN ITALIAN EXPERIMENT**

Giambattista Belgrano, a psychologist and educator, was born in 1931. After running several schools for normal or handicapped children, he took part in an experiment carried out by the National Training Centre for Primary Schools to see how teaching space could be converted into open space for permanent inquiry into teaching methods. He has invented a variety of visual games, and since 1967 has been in charge of producing films made by primary school pupils in the Como district.

**Aids and activities in a village school**

‘Bosio Parini is a village of about 2,000 inhabitants in the Brianza area of Lombardy, between the towns of Como and Lecco.

‘After the decline of agricultural activities, which flourished up to the early 1900’s, this village was for many years cut off from other areas and the more important nearby towns in terms of transport, main roads and industrial development. This had, and still has, a considerable effect on the population and its way of life from an economic, social and cultural point of view.

‘This relative isolation has presented the school with a number of problems of which priority has been given to:
- preserving and developing the community’s indigenous culture (its dialect, traditions, folklore and crafts);
- linking the culture of the community with that of the nation as a whole so that it may become part of a single process of human and social development.'
The primary school: methods and aids

The state primary school is at the centre of the life of the village. The schoolrooms, which are used full-time for experimental teaching, are situated in an old building which also houses the offices of the local council and the nursery school. Life in the school is closely associated with the village life, avoiding that separation which often causes schools to operate in an artificial environment.

The teachers, who work in groups, have set themselves three goals in their work with the children:
- to stimulate the development of the pupils' oral culture;
- to encourage creative activities and the logical organization of thought;
- to develop a sense of participation in the community's life.

The aids to achieve these goals are a number of specially devised games and the use of three aids: the tape recorder, the still camera and the cine-camera.

It is worth noting that the pupils' activities involve their parents, who participate in and collaborate with the work of the school. This does not necessarily imply any particular inclination to do so on the part of the parents but rather that the school is involved in local community culture and that this is the starting point of work with the children. The school's activities therefore find an exact correspondence in those of the community, for they share the same needs and problems and talk the same language.

The activities briefly described below and the use of the aids involved are in a way planned by the children themselves in that the work develops as results are achieved. The close interdependence between linguistic production and the discovery of logical structures stimulates and encourages the children's cultural growth. Furthermore, the use of films and photographs help both the children and their parents to evaluate the culture of their own community and to relate it to the culture portrayed in the cinema and, in particular, on television. This establishes a balanced relationship between the two cultures. The educational work carried out in Bosisio Parini over these last few years clearly shows that the road towards learning and knowledge begins with the ability to recognize values and the cultural dignity of the form, character, structure and language of the local community.¹

Before they are actually confronted with the visual and sound recording equipment, the children in Bosisio Parini become acquainted with the techniques of picture composition and structuring a series of pictures, by handling a variety of educational play objects, such as: superimposable transparent elements, making it possible to combine a decor (landscape for example), a background (dotted or striped screen effect), natural elements (animals, plants, moon, etc.) and manufactured items; and groups of pictures representing successive stages of the same phenomenon (building a house, a tree at different seasons of the year, etc.), which the children are shown and asked to put back in the proper logical or chronological order.

Figure 31: Superimposable transparent elements enable the children to compose and recompose graphic compositions at will. (Source: Van Leer Foundation)

Figure 32: Children can be taught from a very early age to handle a cine-camera. (Source: Van Leer Foundation)

Afterwards, or at the same time as these play exercises, the schoolchildren are supplied with audio-visual recording equipment comprising: a portable tape recorder, with which they can interview the people in their village about their problems, and can record songs, folk tales and expressions in the local dialect, and thus set up for themselves a centre for oral culture which will be open to everybody and constantly restocked; a still camera used for reconstructing logical sequences, to illustrate sequence in a game, for example; and a cine-camera, used from primary school up, to give the children the opportunity to film short sequences entirely on their own.

Thus, by using photographs and film the children are able to interpret their environment and produce an image which leads to the development of two important processes: the discovery and selection of possible alternatives in photographing or filming objects or a situation and the ability to analyze their interpretation of the reality when they see the prints.

Whether or not the films have a sound track rests entirely with the children themselves.

Making a film or a photographic sequence creates a link between the children's activities and the normal life of the community, turning the village itself and the surrounding neighbourhood into one large classroom, for the children, when looking for material, explore the countryside, talk to the local inhabitants at their homes and visit the farms and village shops, thereby involving the school in the rest of the community and vice-versa.

During the last quarter of 1977, the Musée des enfants in Paris lent itself to an experiment which throws new light on the problem of children’s play and creativity.

At the initiative of two artists (the Netherlander Mark Brusse and the Swede Eric Dietman, whose joint exhibition held in Paris as part of ARC 2 in 1975 had brought to light the close connection between play and art), it was decided to open the Musée to groups of children who would come in at regular intervals and work together to build a structure out of waste materials. This was the beginning of operation Vaguement Vert (vaguely green).

**Aim:** to establish communication, by way of a collective endeavour, between adults and children, professionals and laymen, and children of different ages, socio-cultural origins and status.

**Participants** included the two artists who initiated and led the project, the team from the Musée des enfants and the groups of children themselves, accompanied, as part of their school activities, by teachers who volunteered to take part in the experiment. In all, there were five groups of children between the ages of 6 and 11 from state or private schools employing different teaching methods, ranging from the Montessori school to conventional primary schools, in Paris or the Paris area. The result was a very broad spectrum, for in addition to the different types of home environment and teaching that the children were accustomed to, a variety of ethnic groups (children of immigrant workers) and socio-cultural origins was represented.

There was also a small group of children and adolescents from the Perret-Vaucluse psychiatric hospital (Seine-et-Marne), accompanied by the person in charge of the hospital’s clay-modelling workshop and other members of the hospital staff.

Therefore, none of the children participated individually. The basis for participation being the school, of whatever type it might be, and the prior and enthusiastic agreement of the teachers concerned.

**Play and creativity among children from different socio-cultural backgrounds in France**

The premises made available for the experiment consisted of a huge cemented hall measuring 400 square metres, with nothing in it save a few pillars and strip lighting on the ceiling. In short, an artificial space, oppressively empty, with no daylight whatsoever and leading only to corridors or other basement rooms.

In a space such as this, both restricting and available, anything can be done, from resting in the afternoon to having meals which were in fact taken together for several weeks on end.

On their arrival, the children, who knew more or less what the proposed activity was about (some significant misunderstandings are referred to later), found the two leaders waiting for them, prepared to make contact and help them but not to tell them what to do. The first task was to provide the children with a vast stock of miscellaneous items (waste materials that had been donated or collected); old furniture, especially redundant school stock, wooden desks, benches, gym frames, and a large batch of chairs, tables, beds and bedding of various sizes; a great quantity of old clothes, scraps of material, hessian, wrapping materials; miscellaneous items ranging from a painter’s easel to a bicycle and household utensils; and a sundry assortment of planks and rope.

The tools provided included as few potentially dangerous tools as possible—a saw, nails, hammers, pliers and pincers—and a large assortment of paint and painting equipment, glue, paste, etc.

**Working conditions.** Generally speaking, the day’s activities would be carried on in one stretch because of the long journey to and from home. It was therefore truly an experiment at living together, albeit staggered from one week to the next, each group returning after several other groups had been in and made successive alterations to its original work. With large groups, a whole class for instance, the experience could give rise to difficulties, when some of the children wanted to stop for a while and the teachers in charge had no way of letting them go anywhere else. As the weeks went by, it became necessary to provide an adjacent room for breathing space.

**Successive stages.** By the second week, a clear structure had taken shape, some 15 metres long. First there was a
head composed of elements arranged in a more or less circular shape, then the structure became narrower, thinning down to a sort of tail or train.

What struck one looking at it was the feeling of something coherent, even if one could discern and even isolate distinct features such as a horse, tent-shaped shelters, a sort of scarecrow or person hanging by the neck several metres high, a long table piled high with miscellaneous objects elaborately tied in place with string. This table, one side of which can be seen in one of the illustrations, is all the more striking in that it seems non-figurative and yet at the same time calls to mind a nomad’s cart brimming with all sorts of indispensable items. Furthermore, the place chosen for it in the structure as a whole is significant, for it came at the end of the train which by then stretched right down to the end of the hall.

As the weeks went by, additional features continued to emerge, and at the same time some of the children put in the odd finishing touches which they themselves deemed necessary, even when they were done with some reluctance, attempting to put back or repair what had been changed or even pulled down since their last visit. Never at any point was their handiwork thought of as complete. Only towards the end did the artist-leaders remind the children that there was a deadline to the experiment and if they wanted to leave an existing structure behind them, they must stop going back over it again and again. However, the thing was never regarded as a budding work of art, but as a place and an instrument for play, and the greatest merit of the Vaguement Vert experiment is no doubt to have proved that the two could co-exist.

There remains, however, something decidedly ambiguous about the actual purpose of the experiment, due to the fact that it was carried out in a museum and that the children’s awareness of the fact that it would subsequently be open to the public to come and admire it varied according to their age and culture.

Difficulties. From the very first day, in fact, it became clear that there were conflicting attitudes both among the children and the teachers accompanying them. One teacher wondered ‘what on earth have we come here for’, while one of the children announced, not without some disappointment, ‘I thought we were going to find two sculptors in the museum who would teach us how to make marble statues’. For them, museums and artistic activity are already rooted in a cultural system, and the greatest achievement of the experiment would no doubt have been to make it totter on its foundations.

Success. But in no time at all, everybody was carried away by what was happening, and even those who had been most reticent were swept along by the creative spirit of what was, ultimately, a game. One of the major steps was getting beyond the instinct of ownership, for from one week to the next, one or other of the groups of children would arrive to find the whole area they had been working on changed or gone altogether. It was essential, therefore, to make them understand that the idea was for it to be a shared undertaking, over which nobody could claim exclusive rights. Another substantial achievement was no doubt to have succeeded in getting children of different ages and social origins to work together, without even having their school or neighbourhood in common. Such a successful outcome was hardly predictable when it came to having so-called normal children join in with mentally deficient children, some of whom were psychotic cases deprived of the use of speech.

After being open for six weeks to the public, including a large number of children who made ample use of the play structure at their disposal, Vaguement Vert reverted to its original chaotic state, as it had been before those weeks of intensive juvenile creative activity... juvenile and adult, for the influence of the artists must not be underestimated, however strongly they deny it. No presence of any kind can be neutral, nor can the choice of materials, an example being the particularly liberal use of string and rope.

But Vaguement Vert refused to be elevated to the status of a work of art and was brave enough to end up on the municipal rubbish dump. A few items were salvaged from the wreckage and although they certainly cannot purport to keep intact an overall picture of this micro-cosm, they do stand as the expression of a fundamental query; through these fifteen or so figures (or should one say dolls, or statues?) put together with whatever scraps happened to come to hand and at the cost of a long period of intense creative effort, the question of human individuality is brought into sharp focus, as critically as it is in art.
GENERAL EXAMPLES OF RECORD CARDS ON GAMES, TOYS AND PLAY MATERIALS

Prof. Yahaya S. Toureh

These examples of cards are proposed in a highly simplified form and only as a general guide. It rests with the potential user to enlarge upon them according to the aims he wishes to achieve.

Record card: games

<table>
<thead>
<tr>
<th>Name</th>
<th>Cultural origin</th>
<th>Model</th>
<th>Description of the game</th>
<th>Rules</th>
<th>Stakes</th>
<th>Place</th>
<th>Time</th>
<th>Number of players</th>
<th>Aptitudes involved</th>
<th>Classification</th>
<th>Potential use in teaching</th>
</tr>
</thead>
<tbody>
<tr>
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<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>intellectual</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>socio-affective</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>aesthetic</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>technological</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

List of materials and tools with which the workshop might be equipped

Materials
leaves, branches, dried fruit and seeds, planks of wood, raffia, paper, cardboard boxes.

Cloth and thread of different colours
- cotton
- bark
- synthetic materials

Metal
wire, empty tins, aluminium foil, receptacles of various shapes
We know that psychological activities, whether they relate to the fields of sensorimotor activities, intelligence, affectivity or socialization, vary according to the child's stages of development. We also know that these stages of development always follow one another in the same order. This concept of order is important because it is universally applicable, whereas the ages at which these stages occur are unimportant, since they may vary not only from one culture to another but also from individual to individual within the same culture.

We must emphasize the fact that the characteristic activities of one stage incorporate, but do not efface, those of earlier stages: for example, at an age at which purely functional games have been given up, there may well be components of functional pleasure in a game with structured rules or a procedural game.

It is possible to analyse the child's activities and so to classify them. But a child at work or play, engaging in the manifold activities of real situations in daily life, exhibits complex behaviour at every moment. It will therefore be no surprise if a particular game played by a given group of children falls into several categories at once. In fact, this is nearly always the case. Each category may denote a simple activity, several of which are present together in a game.

In this case, when the teacher thinks it necessary to concentrate on a particular activity, he can start with a game in which it predominates, even if he has to alter the rules of the game, (simplify them, clarify them, or, on the contrary, make them more elaborate). To take a game and use it for educational purposes is not to deprive it of its own special characteristics, which will be defined below: nor is it to be confined by the wholly specific characteristics of a particular game, merely because it exists in this form.

The structures which underlie games, and which relate to activities engaged in by children in the course of their development, must be sought locally, in every culture. Such structures are the subject of the proposed classification.

Play activities: their principal structures

Operational definitions

A game is any activity of a child not undertaken because of a constraint imposed by the context in which he lives (family, school, social and physical surroundings) as opposed to work or defence, for example.

A game is often spontaneous, but this is not an essential criterion; it may be started by one or more partners, adults or children, who suggest it. On the other hand, it is never forced. The fact that a game is not necessarily spontaneous should be stressed, for it is because a game may be played on someone else's suggestion that it can sometimes be used for educational purposes.

A game may have a definite purpose; it is often a useful activity, so that it cannot be said to be gratuitous or useless by definition. However, it may be useless.

Hence, a play activity may be used for an educational purpose, on condition that it is not compulsory (point 1), that this activity may be suggested and guided, in particular forms and circumstances (point 2), and that the activity thus undertaken may be turned to account (transferred or generalized) in other activities (point 3); hence its educational value.

So that the game may remain a game while at the same time serving an educational purpose, it seems particularly desirable, if not entirely necessary, to start with games and play materials (such as toys) which already belong to the repertoire of a child's reference group. Apart from obvious reasons of convenience and economy, such a rationalization of natural play activities seems highly desirable because it is psychopedagogically effective.

Functional exercises

This term denotes activities which train a function in the child's development which is maturing, or has already matured — for example, swinging, the aim of which is the kinaesthetic pleasure of the process itself; vocal activities which train speech or memorization (counting rhymes); balancing, etc.

Such games, which are to be found in all cultures, are to some extent necessary to the education of a normal child or pre-primary age. For example, static motor activities (balance) and/or dynamic motor activities (rhythmic running, dances, etc.) which are well suited to the Baoule child and which he rapidly masters, need not necessarily be performed by him during the period of schooling. However, they may be performed among Baoule children as a medium and support for other activities considered pedagogically necessary (free expression, co-operation, spatio-temporal organization of graphic space, etc.), when the Baoule child is faced with a problem of motor organization (minor handicaps, etc.), or in other cultures where this type of activity is also to be found, but is mastered at a later stage or is less systematically spontaneous.

Symbolic games

This term denotes any play activity in which the child represents an object, a person or a situation by means of simulacra (symbols). In a symbolic game, therefore,
reference is made to a situation which exists outside the game. Since the symbolic game refers to the concept of signification, it seems appropriate to define two terms very briefly. The **signified** is that which is represented, e.g. the person or the object itself which exists in reality or in imagination outside the game situation and which is represented symbolically in the game (the doctor, when playing doctors, or the food, when playing tea-parties). The **signifier** is the presentation (the object or the dumb show, etc.) by means of which the signified is represented (for example, a leaf or a pebble which will be the signifier representing food; the movements of auscultation, a serious expression, etc., the signifiers representing the doctor). As a rule, in symbolic games the signifier is complex, composed of both objects and dumb show, when the signified is a social situation. To return to the example of the doctor: to signify a consultation, a hollow stem, signifying a syringe and the movements of auscultation, will together be the signifiers of the doctor, who is the person signified.

The extent to which the signifier is independent of the signified depends on the age of the player; on the culture, or cultures, to which the player and that which he represents belong, respectively or jointly; on the complexity of the game; and on the mode of expression of the game (e.g. verbal, or plastic, or sensorimotor).

Symbolic games fulfill functions which may, with advantage, be used in education. For example, games reflecting the mother/child relationship exist in most cultures, with toys which have been variously developed and with symbolized situations which belong specifically to each culture. As such, they may be used for educational purposes.

The functions of symbolic games are usually affective (symbolization of the love object, in an object to which the child is attached: a bear or other animal, etc., according to the culture), involving identification with a model (nearly always the mother for girls and the father for boys, with acting out of the roles and status of the model). They may be socio-affective: identification with an occupational model (pretending to be a hunter, a school teacher, etc.) or a model in the social hierarchy (pretending to be the chief etc.).

**Procedural games (or games with structured rules)**

When a child plays, he sets rules for himself in his game and his game often obeys an internal logic (especially symbolic games); but some games, which are played only by older children or adolescents, are specifically characterized by their rules and logic. These are procedural games. This term in the present context denotes games which have their own unity and which do not necessarily refer to situations existing outside the game situation (unlike symbolic games). It should be emphasized that there are many different types of procedural games and that they are not necessarily without a certain amount of functional, or sometimes symbolic, pleasure. But the main point of them is the logical regularities which they impose. They may be individual or collective games (for example, card games).

A card index providing a set of models which can conveniently be used by educators in their work and into which they can incorporate (with assistance when necessary from suitable advisers) games played in their own cultural group is invaluable.

Apart from the general classification guide to activities opposite, the card index below should include explanations of a small number of terms (as examples) designed to encourage the user to seek out any further explanations which he may need, and a number of cards indicating an activity which it seems desirable to use for educational purposes, each of these citing examples of play materials or games which lend themselves to such use, in one or two cultures (the analysis of Baoulé games made by Chantal Lombard should provide ample illustration of the various activities carried out in games in a specific culture).

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**Sample card for Card Index**

| RULE-GOVERNED ACTIVITY, COGNITIVE ACTIVITY, CLASSIFICATION ACTIVITY, ONE-DIMENSIONAL ACTIVITY (C 1 1 1) |
|---|---|---|
| **Ivory Coast** | **Europe** | **In your culture** |
| Materials: seeds or fruit used by children in making toys and playing games (round seeds for the wheels of vehicles, long seeds for dolls, etc.) | Materials: counters, pictures or specialized teaching materials | Which readily available materials may be used as a medium for a one-dimensional classification activity? |
| Possible categories of classification: | Possible categories of classification | What spontaneous classification activities do children engage in? |
| Shape (round or long) | Shape | |
| Consistency (hard or soft) | Colour | |
| Flexibility (supple or stiff) | etc. | |
| Sounds (makes a noise or not when struck) | | |

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### General classification guide

#### FUNCTIONAL EXERCISES

<table>
<thead>
<tr>
<th>Category</th>
<th>Type</th>
<th>Subtype</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sights</td>
<td>Simple</td>
<td>(1) with attempt to find differences or similarities</td>
</tr>
<tr>
<td></td>
<td>Simple</td>
<td>(1)</td>
</tr>
<tr>
<td></td>
<td>Simple</td>
<td>(1) with attempt to find differences or similarities</td>
</tr>
<tr>
<td></td>
<td>Simple</td>
<td>(3) with attempt to find differences or similarities</td>
</tr>
<tr>
<td></td>
<td>Static</td>
<td>(1) Kinaesthetics</td>
</tr>
<tr>
<td></td>
<td>Dynamic</td>
<td>(2) Rhythms</td>
</tr>
<tr>
<td></td>
<td>Repetition</td>
<td>(1)</td>
</tr>
<tr>
<td></td>
<td>Chanting</td>
<td>(2)</td>
</tr>
<tr>
<td></td>
<td>Verbomotor</td>
<td>(3) carrying out instructions</td>
</tr>
<tr>
<td>Verbal</td>
<td></td>
<td>(3) describing actions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1) Non-verbal (imitating the actions of the model)</td>
</tr>
</tbody>
</table>

#### SYMBOLIC GAME ACTIVITIES

<table>
<thead>
<tr>
<th>Category</th>
<th>Type</th>
<th>Subtype</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affective</td>
<td>From the family</td>
<td>(1) From work</td>
</tr>
<tr>
<td></td>
<td>Identification</td>
<td>From work</td>
</tr>
<tr>
<td></td>
<td>Socialization</td>
<td>In the family</td>
</tr>
</tbody>
</table>

#### ACTIVITIES STRUCTURED BY LOGICAL RULES OR PROCEDURAL ACTIVITIES

<table>
<thead>
<tr>
<th>Category</th>
<th>Type</th>
<th>Subtype</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Simple</td>
<td>(1)</td>
</tr>
<tr>
<td></td>
<td>Classification</td>
<td>(1) double</td>
</tr>
<tr>
<td></td>
<td></td>
<td>multi-dimensional</td>
</tr>
<tr>
<td></td>
<td>Cognitive using manipulable data</td>
<td>(1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Seriation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Inclusion</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Causality</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Spatial structuring</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Conservation</td>
</tr>
<tr>
<td></td>
<td>Cognitive using verbal data</td>
<td>(2)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Memorization</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Deduction</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Implication</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Taking up a role (alternation)</td>
</tr>
<tr>
<td></td>
<td>Social</td>
<td>Influence on others</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Co-operation/competition</td>
</tr>
</tbody>
</table>

#### CONSTRUCTION ACTIVITIES (FABRICATION)

<table>
<thead>
<tr>
<th>Category</th>
<th>Type</th>
<th>Subtype</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>Without a concrete model</td>
<td>Creation</td>
</tr>
<tr>
<td></td>
<td>ex: a pestle</td>
<td>(1)</td>
</tr>
<tr>
<td></td>
<td>With operational reproduction of the working mechanism</td>
<td>ex: a cart (2)</td>
</tr>
<tr>
<td></td>
<td>With approximate reproduction of the working mechanism</td>
<td>ex: a catapult (3)</td>
</tr>
<tr>
<td></td>
<td>With a non-operational simulacrum of the working mechanism</td>
<td>ex: television set (4)</td>
</tr>
</tbody>
</table>

#### SYMBOLIC ACTIVITIES

<table>
<thead>
<tr>
<th>Category</th>
<th>Type</th>
<th>Subtype</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Plastic</td>
<td>(1)</td>
</tr>
<tr>
<td></td>
<td>Verbal</td>
<td>(2)</td>
</tr>
<tr>
<td></td>
<td>Musical</td>
<td>(3)</td>
</tr>
</tbody>
</table>

N.B. Categories, A, B and C succeed each other in time (the structures of one category incorporate those of preceding categories, without effacing them); categories D and E, on the other hand, represent activities which appear simultaneously with those of B and C; they have been classified separately owing to the nature of their content and not because of the stage at which they appear.

The *letters* indicate the principal category of the activity involved (e.g., the code for a functional exercise is /A/).

The *first figure* indicates the sub-class immediately below it in the hierarchy (e.g., /A1/ = functional exercise using verbal data).

The second figure, and the third, where there is one, indicate sub-classifications according to a system of successive inclusions (e.g., /C122/ designates a structured activity of a cognitive nature related to a seriation activity dealing with concrete data).

The sex of the children taking part in this activity may, if necessary, be indicated in brackets.
The games children play have received little attention from the ethnological point of view. Some students of folklore, however, have attempted to preserve traditions by recording the actions, rules and variations of a game. Games, unappreciated by sociologists and historians, have always interested educators. For the educator, games are the favourite activity of the child and are also capable of being developed by the adult. The innovation of schooling in countries with a rural tradition leads the national education authorities to examine the nature of village education, where games are often combined with agricultural work and where teaching institutions make use of both instructional techniques and play techniques.

This discussion, intended for teaching authorities, aims at providing the necessary methodological bases for the conduct of an ethnological survey on children's games. Thanks to the games they discover and record, educators will be able to analyse the particular psychological characteristics of the children with whom they work, they will recognize the children's world reflected in their play activities and, lastly, they will find practical bases on which to build up their teaching. The methodology of the survey begins by defining and classifying play activities and then recording them in the village setting, in accordance with the various survey techniques used. In connection with a training centre for primary school teachers and inspectors, various topics for study and methods of organization will be suggested. Finally, some operations will be explained for the production of games and toys within the school and the village themselves.

Definition and classification of games

A game is defined as a free activity, structured by rules which define movements described in space and time and based on a fictitious situation. The child knows he is playing; the consciousness of the player creates the progress of the game, which is an interplay of make-believe and awareness. The enjoyment is of a kind experienced within the players' own consciousness rather than visible by objective observation of their behaviour. Play activity cannot be defined as a collection of practices that are identifiable a priori. It is the players who make the game. Unfortunately, the consciousness of the player is not an operative factor where classification is concerned.

Any classification of games results from a desire to organize the activities in question and to differentiate between them for reasons that are often independent of the actual play. Descriptive classifications make it possible to set a game in a social or material environment. Typological classifications illustrate theories on the nature of game playing.

Criterion 1 — The origin of games. The origin of games in a given environment (village, ethnic group, region, country) is of one of three kinds: endogenous, for games invented and/or transmitted within the environment; exogenous, where games foreign to the community are adopted, which implies receptivity on the part of the environment and acculturation; and mixed, where there is a reinterpretation of traditional and outside elements.

Classification of games according to their origin leads the investigator to analyse the channels through which the capacity to amuse oneself is transmitted, the ways in which that transmission takes place, the conditions for the creation and adaptation of new games, and the cultural impacts that form part of the history of a community.

Criterion 2 — Conditions for the creation of games. A game is an activity consisting of several factors: players, equipment, space, time. The characteristics of the players are their number — games for one, two, three, four players, etc. — and the way in which they are organized as individuals, teams, etc.; other characteristics of the players are useful for specifying the way in which the game is played: sex, age, ethnic group, education. Oral games differ from manual games by the presence or absence of materials required. In manual games, different materials may be used depending on the environment: games with identical rules are played with cardboard, sand or a plank of wood according to the material available in the environment. A specific space or time is a condition inherent in play: some games require a certain space marked out on the ground; others are played only at certain times of the year or of the day. In general, play activities have a certain sequence in time, comprising phases of preparation, action and conclusion.

Criterion 3 — Activities involved. Play involves the whole person of the player; few are the human activities in which only one function is utilized. Certain games, however, require mainly physical effort, while others demand an intellectual contribution. A distinction can therefore be made between the following families of games: physical-exercise games, games of strength and skill, races, chases, hide-and-seek, jumping; games of construction, construction of mechanical toys, construction of models and invented objects; intellectual games, testing games, memory games and games of logic, games of wit, mathematic games and games of chance; games representing a social situation, miming and acting; rhythmic games and games of physical and vocal expression, songs, games of chanting and dancing; and mixed games, games in which the various activities each form an integral part of the play.

Criterion 4 — Nature of games. Games are activities which refer back to the origin of human and social development. Piaget has suggested a classification based on psychogenetic analysis and Roger Caillols has devised a typological classification according to essential and irreducible impulses: competition, chance, mimicry, vertigo.

In competitive games, the element of rivalry derives from the capacity of the individual players; in games of chance it is fate alone which deals out the advantages; in games of mimicry the actor makes believe and believes that he is someone other than himself; lastly, in games inducing vertigo, the players are seeking a sensation of dizziness and of voluptuous abandonment.

These different criteria for grouping play activities make it easier subsequently to relate games to one another and to the environment, and to relate one group of players to another; they thus confirm research hypotheses formulated a priori by research workers.

Recording of games

The investigation to be made for the purpose of discovering the games played or known by a given society takes place at several levels: that of obtaining a description of the object of the game, its rules, its successive phases, etc., that of observing the players in action, and that of active participation in the game by the investigator. Research-
Direct observation. The investigator is led to observe the people concerned, to encourage them to play and to join in their games; after the participation phase in which the investigator obtains by experience the information he is seeking, the reporting phase necessitates extremely careful writing-up very soon after the activity. The advantage of playing is to discover certain aspects which the investigator may not have thought of noting beforehand or of finding out from the players. The investigator, however, is also a disturbing influence; he may appear unexpectedly when play is in full swing and break up the game without meaning to do so. Depending on the personality of the investigator, the players may feel obliged to stop, as a mark of respect for a stranger. Research-action, a method adapted to a teacher and his class, produces qualitative information but cannot be used for a large-scale survey, for which recourse may be had to more traditional techniques, described below.

Direct observation. This technique allows for the spontaneous character of games; observation is carried out in a casual fashion — the investigator follows the game without obviously doing so, and may take part in a subsequent round of the game. Various methods are employed to record the mode of play: rough notes, sketches, use of audio-visual equipment such as tape recorders and still, film or video cameras. Notes are usually transcribed on to an observation guide drawn up during the preparation of the investigation. The advantage of direct observation lies in discovering the way in which the children actually play, in analysing the development of the game. It enables the stages and rules of the game to be reconstituted afterwards. During the actual playing of a game, its rules are instructively followed by the players, who find difficulty in formulating them. The limitations of this method include the fact that a number of games, which can be cited in an oral investigation, do not lend themselves to observation; and observation of games actually being played often gives an incomplete picture; children adopt and abandon games easily without worrying about the correct version. The ways in which the pattern of a game is modified by children are no doubt interesting and indicative of creative processes, but they often obliterate the said pattern.

Oral questionnaire. When they are intended for people differing in respect of age, sex and environment, questions put to individuals or groups can usefully broaden the field of inquiry. Not only will rarely-played games be mentioned, but also all the old games or those temporarily abandoned. The information given is often incomplete and it is of advantage to the investigator to have a questionnaire which he fills in while interviewing people. One way of increasing and supplementing information is to interview a group of people together.

Written questionnaire. This method of investigation reaches only a part — often a minority — of the people to whom a survey on games is addressed. While written answers cannot be expected from lower primary-school classes, the method makes it possible to collect sketches, comments and attempts at interpretation, which throw an interesting light on the way in which games are seen by the children themselves. Open questions leave room for freer expression — with the danger that a game may be mentioned and no more; closed questions aim at precision and should be tested to make sure that the children understand them before being used in an investigation. The advantage of the written questionnaire is that it enables a large number of people to be reached at moderate cost. By combining the written questionnaire (for compiling a list of the games by name) with the use of oral investigation or observation (for obtaining supplementary information on the games) it is possible to obtain an accurate method of recording and exploiting information.

Whatever the means chosen for the collection of information on the games, the most effective method of exploiting it qualitatively and quantitatively is to transcribe the games on to cards, using a standardized layout. The cards are then arranged according to various criteria which correspond to the previously determined research hypotheses. Each card consists of a descriptive section (name of the game, method of playing, characteristics of the players, rules, stakes, penalties), and an analytical section (origin of the game, conditions in which it has developed, activities involved, nature of the game).

Analysis of the information leads to certain conclusions and implications. Classification of games according to their origin: quantitative examination reveals families of endogenous and exogenous games; it also assists in determining the stage of transformation a community has reached. Qualitative analysis enables illuminating comparisons to be drawn concerning values which have been preserved, adopted or altered; it also raises questions concerning the channels through which traditions are transmitted. Classification of games according to the conditions in which they have developed: quantitative examination and qualitative analysis are designed to define the ecological conditions and social organization of the groups under consideration and thus to facilitate comparisons between them. Classification of games according to the activities they involve: quantitative examination makes it possible to determine which types of activity are dominant, while qualitative analysis reveals the characteristics and customs of ethnic groups. Classification of games by their nature: by means of quantitative examination, the groups of games can be arranged in a graded series — mimicry more developed than vertigo — etc.

Combination of criteria with one another: by combining criteria of origin with those relating to conditions of development, analysis throws into relief those elements which are constant, and those which have been abandoned or are new, in the development of games.

Comparison of the criterion of origin with that of the activities involved brings to light the traditional or modern elements present in those activities. The relationship between the origin and the nature of games enables a distinction to be drawn between ancient games possessing a given nature and modern games which develop a new kind of nature. By comparing the conditions of development with the activities involved, analysis leads to the establishment of links between components and activities which enable groups of games to be characterized. The polyvalence of the elements can be illustrated by comparing the conditions of development with the nature of games: for instance, pebbles may be used in a game of mimicry and also a game of chance. All these comparisons lead to multi-faceted analysis, in which games classified according to their origin are subdivided according to the conditions in which they have developed and to their nature. These combinations may result in a new typology of games.

Games are expressive of a given culture and, where there is an increase in exchanges, it is possible to try by means of this survey to discern trends in the direction of acculturation. Thus certain play-acting games, rooted in a
culture, continue to be played among children who are attending school, but the parodial sense they used to have for the older generation is replaced by an aggressive sense of groups returning home at the beginning of the holidays. The ways in which games are played reveal hidden social phenomena.

Suggestions and working hypotheses for individual or collective work to be undertaken by student teachers and student inspectors

Approach 1 - Games. How can games be defined? From your own experience, attempt to compare games with art, odd-jobbing, magic, rites. Try to analyse the structure of a game, to break down the phases by which it progresses and to classify its rules.

Approach 2 - Games as a mirror of society. Compare the productive world of adults - and sometimes children - with the world of play: analyse the relationships between adults and children, and study games and toys as factors in technological and social experience. In an environment where the children go to school, evaluate the school's impact by means of the games the children have learnt and the games they have invented as a result of their school experience, and ascertain the teacher's influence and the expression of educational values reflected in the children's games.

Approach 3 - Games and change. Seek the conservative and innovatory elements in games: in the way they are organized, in their underlying themes, in the materials and techniques used in them. Inventions are interesting to identify: are they due to some outside occurrence, to integration into a new environment, or to a normal tendency of the human mind? For the purpose of discovering the agencies of change, exchanges of games between town children and village children, and between children who attend school and those who do not, may be observed; in which direction do the exchanges operate?

Approach 4 - Games and learning. Consider the chief abilities acquired by the child in the course of his development and compare these with an analysis of the knowledge acquired through playing games. Consider, for example, studying the penalties in games played by children of different ages so as to follow the child's training for life in society, or compare from the point of view of mental arithmetic games played by children of different ages.

Organizing and carrying out a survey on children's games, like any survey conducted in a school environment, requires a certain number of precautions. In the first place, the purpose of the survey, the people to be approached and the method of investigation should be defined, taking account of the time and means available. Preparation of the survey and exploitation of the information take up 80 per cent of the research time, while observation and comparison in the field largely account for the remaining 20 per cent. Provision for efficient means of recording assists the work of observation. The most delicate operation is selecting themes of interest to the student teachers and converting them into a working hypothesis; far from wishing to restrict the field of research, the point is to polarize and structure the survey itself. This selection can in any case be enlarged later when correlating the cards for the various games. Before the student teachers are sent out into the field as investigators, they should be made to think about their relations with the people to be investigated, how their own presence may affect the play, how they will be regarded, and how they will note the behaviour of players in the course of play. Moreover, a methodological simulation can be carried out: for example, by getting two students to play draughts and by asking them to make a record of the game on a card, with the observers also preparing a record card. Comparison of the two records seems to be the best way of tackling the problem of selecting notation criteria for the standardized card - including the problem of transcription of the movements of the game and of unwritten conventions. For surveys involving participation, the investigator-organizers must have some psychological training: their first task is to motivate the public, so that people will appreciate the value of this kind of research and can participate fully. The organizers of groups of players see to the programming of activities, the accurate preparation of records, and the collective interpretations of results.

Toy-making by children and/or adults

Endogenous games and toys produced by children in savannah country. There are several advantages in setting up a games workshop in a school. The first is recognition of the necessity of providing a form of social organization for productive tasks of a certain size, and of introducing into the strict and hierarchical organization of the school other forms of organization - often modelled on those of the out-of-school environment; the second is avoidance of separating the world of work from the world of play (the making of certain toys requires a great deal of effort, and playing a game through to the end often calls for endurance); the third is use of the practical experience gained by the children as a starting point for introducing them to more general principles - from tentative efforts in the sphere of technique to the laws of physics; lastly, the school's readiness to participate in children's amusements is a sign of the teachers' sympathy with the personality of the child. In areas where only a minority of the children attend school, differences sometimes arise between the latter and their non-attending friends; these are skilled in hunting, in country lore and in making the objects they need for their games; consequently, in the holiday time, the schoolchildren suffer from a strong sense of inferiority in the matter of techniques, which the school could not only remedy but also change.

Endogenous games and toys produced by adults. The introduction of adults, and especially craftsmen, into the school would allow of a continuity in the functions of village life; by observing the making of an object, children learn the movements it implies and, by questioning the craftsman, they become familiar with his work. The adults can teach games that are no longer known to the school generation; this will give them a feeling of responsibility in one sector of the children's education. Among the villagers school education is still too often regarded as esoteric, whereas its purpose should be to train up farmers, craftsmen, workmen, technicians fitted to follow in their fathers' footsteps.

Exogenous games and toys produced by children. An important feature of these activities - as of all forms of play - is the preparation of children for living in a community. The initiative, in this particular case, comes from the teacher, who suggests to the children transpositions and adaptations of games which are unfamiliar to them: he can get them to prepare maps, help them to select a theme (e.g. the flora or fauna of the region), and then teach them the game. Through this type of activity, children learn something new at school and can subsequently assimilate ideas with the help of the game. Teaching games,
of which there are a number in Europe, can be transposed and used as exercises for reinforcing the learning of a vocabulary, of mathematics or history. Scientific toys are a good form of introduction to science; in making them, the children develop, on the one hand, their powers of observation and their skill, and, on the other, their knowledge of a more advanced technology. The teacher should possess good documentary material on teaching-games and toys; he should also attend courses for the purpose of acquiring a technique that he did not develop during his training. The technique of teaching by way of games can be learnt like any other teaching process.

Exogenous toys produced by adults. Here we are concerned with toys ordered by the teacher from craftsmen. The advantage of this lies, on the one hand, in the definite saving it represents for the school — materials manufactured locally cost less than imported materials — and, on the other, in the opportunity it affords the craftsman for branching out in new directions. These orders for objects such as wooden puzzles, building blocks etc., given by the school to local craftsmen illustrate the way in which the school can play a part in promoting the development of the village.

Combined process toys made by adults and transformed and decorated by the children. One avenue to be explored is the possibility of providing children with standardized teaching equipment on which they can make their personal mark, e.g. blocks or figures which the adult can make out of wood, and which the child can paint, on which he can stick paper, and with which he can make up all sorts of stories involving one or more persons.

In conclusion, all the activities relating to games and toy-making afford opportunities for preserving a sector of the endogenous culture and integrating it into the educational process; they also afford opportunities for becoming acquainted with exogenous cultures that are rarely assimilated by way of play.

A survey on games and toys is a method of bringing adult investigators into the midst of the child’s world: it will enable them to rediscover some amusements of their own earlier years and to see how games have evolved since then. In games, conservatism and invention are the motive forces which bring children together, lead them to carry out difficult tasks, sustain their efforts and stimulate them through all the stages of their development. The perception of a local culture obtained through children’s games gives an insight into the changes being experienced by rural societies, states of imbalance, etc., that may be expressed by the collective unconscious in the inventions of play. From their study of games and groups of players, the investigators will be able to analyse the modes of transmission and the forms of social organization invoked by the children. The teachers, for their part, can derive from the children’s capacity to amuse themselves ideas for imparting new information, and create an atmosphere comparable with that which obtains in the playing of games in a village or town. If an inventory of games is prepared in different countries, it will be possible to establish families of games, noting the regional variants, and then to circulate the cards containing records of the games together with a note on the use made of them in class. Three years’ experimenting will provide a whole range of games that have become educational, which will be extremely useful for primary schools as a whole; a game that is observed, recorded and then used in class becomes an effective educational tool. Great prospects will be opened up for the technologists of education by the standardization of the method of recording games and by the evaluation of the utilization of games in school. It may be that a heritage of games will be formed which will renew antiquated teaching techniques.

Examples

The following pages give some examples of questionnaires and card records in order to assist teachers in the recording of children’s games in the area where they work. All these working tools have been developed and used in the course of inventorying the games and toys of children in Ivory Coast, more especially in the Bouaké district.

Observation guide: toys
(the object, its production, its utilization)

1. Description of the toy

10 Name
(meaning)
11 Dimensions
12 Physical characteristics
(picture, sketch, etc.)
13 Materials
14 Lasting quality
(length of life or of resistance to wear and tear)

2. Construction of the toy

21 Constructor(s)
211 sex
212 age
213 schooling
214 ethnic group
215 family situation
216 place of birth
217 changes of abode

22 Preparation
221 choice of materials
222 source
- free
  gathered in the bush
  collected locally
  donated
- bought
  price
223 origin and primary purpose of materials
- article of food
  used in agriculture or craftsmanship
224 treatment
- making the parts
- method of assembly (string, nails, etc.)
- tools used

23 Phases of construction
- (beginning, basic shape)
- trials
- completion
4. Playing a game

41 Player(s)
   412 sex
   413 age
   414 education
   414 ethnic group
   415 family situation
   416 place of birth
   417 changes of abode

42 Type A: played with a toy
(or an object such as a stone, a seed, etc.)
   420 Method of obtaining the toy
      - free
      - made by the player(s)
      - donated by the maker (member of the family or outside it)
      - bought
      - place (market, pedlar, etc.)
      - price
      - source of cash (pocket-money, personal property)
   421 occasion for obtaining the toy
      - no specific occasion
      - specific (family, village or school)
   422 Period
      How long has the player had the toy?

43 Playing the game
   431 Partners
      - number
      - composition of the group

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<tbody>
<tr>
<td>AGE</td>
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<td>ETHNIC GROUP</td>
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<td>EDUCATION</td>
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34 Channel of transmission
   - relationship
   - age
   - profession

35 Innovation on a basic model
   - form
   - materials

36 Symbolic content
   - reproduction of a picture
   - reproduction of an object
   - reproduction of an institution
   - value attributed

37 Geographical extension
   - methods

24 Time required
   241 Observation
      Preparation
      Construction
   242 Estimation

25 Constructor's intention for use of completed object
   - own use, personal enjoyment
   - to be given away
   - to be sold

26 Constructor's experience
   261 - this is the first model he has made
   - this is his ....... (nth) model

27 Period of constructing of the object
   271 - no particular time
   - determined by the season of the year
   - determined by social factors
   272 - on the occasion of a family celebration
         - on the occasion of a village celebration
         - on the occasion of a children’s celebration
         - on the occasion of a school celebration
   273 - exact times at which construction is carried out

28 Place of construction
   - no particular place
   - place determined by ...

29 Use of toy
   - individual use
   - collective use
   - collective use in a game

3. Conception of the model

31 Origin of the model
   - advice given by others
   - traditional; imported; mixed

32 Prototype

33 Imitation of a model
   - known in the village
   - seen in town
   - seen in a book
   - learnt at school

34 Channel of transmission
   - relationship
   - age
   - profession

35 Innovation on a basic model
   - form
   - materials

36 Symbolic content
   - reproduction of a picture
   - reproduction of an object
   - reproduction of an institution
   - value attributed

37 Geographical extension
   - methods

41 Player('s)
   411 sex
   413 age
   414 education
   414 ethnic group
   415 family situation
   416 place of birth
   417 changes of abode

42 Type A: played with a toy
(or an object such as a stone, a seed, etc.)
   420 Method of obtaining the toy
      - free
      - made by the player(s)
      - donated by the maker (member of the family or outside it)
      - bought
      - place (market, pedlar, etc.)
      - price
      - source of cash (pocket-money, personal property)
   421 occasion for obtaining the toy
      - no specific occasion
      - specific (family, village or school)
   422 Period
      How long has the player had the toy?

43 Playing the game
   431 Partners
      - number
      - composition of the group

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   - structure of the group
   - with informal leader(s)
   - with formal leader(s)
   - basis of grouping
      - family, age, locality, village
   - school, friends
   - habit of meeting
      - regular, determined by ...
      - irregular or indeterminate
      - circumstances of meeting
      - indeterminate (spontaneous)
      - definite (leisure, work, family or social occasions)
   431 Description of the game
      - preparation
      - assembling the players, toys and materials
      - starting position (order of starting)
        - (starting signal)
        - (starting point or mark)
physical attitude (position of the body) (position of the toy) (sequence of movements)
- progress of the game
- structure of the game (continuous or in phases or alternating)
- organization of the players (order of participation)
- distribution of roles (penalty, forfeit, prize)
REWARDS moral practical (something to eat or sell)

44 Object of the game
441 - competition
- exercise
442 - material reward
- honorary reward

45 Period when the game is played
- no particular period
- determined by seasons
- determined by social factors

46 Symbolic content
- none
- reproduction of a picture, a rite, or an institution
- value attributed

47 Geographical extension
- methods

48 Type B: played without physical objects
(cf. 43; exclude 420 to 422)

49 Origin of the game
- traditional
- imported
- mixed

50 Purpose of play
- competition
- vertigo
- mimicry
- chance
- catharsis

Oral questionnaires
1. Addressed to adults, individually and in groups

a) What games did you play when you were young? (List them and ask the meaning of the names.)
b) Are these games still played by children? (Record the answers and check that the list is complete.)
c) How is this game played? (Going through the list of games one by one.)
   - how many players?
   - of what sex?
   - of what age?
   - what roles do the participants play?
   - what is the object of the game?
   - what are the rules?
   - what are the penalties?
   - how much space does it require?
   - what equipment?
   - is there a particular period for playing this game, or a favourite period?
   - is it a traditional game?
   - what is its origin?
   - what are the variants of it?

2. Addressed to groups of children

a) What games do you enjoy playing? (Record the answers, repeat the names, encourage everyone to take part.)
b) How do you play that game? (Record the explanations and invite the children to simulate a round of the game. Ensure that full information is obtained in respect of players, rules, necessary equipment.)
c) How did you learn to play that game? (Aim at mentioning games familiar to the older generation?)
   - is it an old game?
   - what do you like about that particular game?
   - why do you no longer play such and such a game?

Written questionnaires
1. Addressed to pupils in the first year of secondary school (open question; individual answers).

a) What is your favourite game? Imagine that you are writing about it to someone in another country.
   (Overpage and below sketches by a child for making a toy, and an example of a piece of writing (Fig. 35) and a questionnaire for recording information on a pupil.)

2. Addressed to pupils in the first year of secondary education (precise questions; individual answers)

You decide to make a toy for your little brother:

a) What toy will you choose to make?
b) What materials will you need?
c) What tools will you use?
d) How will you go about it?
e) Make a drawing of the finished toy?
f) Will you get a friend to help you? If so, who?
g) How long will it take you to make this toy?
   - one day?
   - half a day?
   - three hours?
   - two hours?
   - one hour?
   - less than an hour?
   - more than a day?

Descriptive questionnaire

My name is. ................................

I was born at ..............................

My father comes from the ............... region
My father works as a ............................
My mother comes from the ............... region
My mother is (is not) a paid worker ............... I am: a boarder at the Lycée
   with a guardian
   with my family
In the holidays I am going to ............... (holiday location)
which is ........................................
   (my father's village, my friends' village)
I have big brothers and big sisters
I have little brothers and little sisters
I speak English, and
At home we usually speak
I have attended the following schools

I do (do not) belong to a youth movement.

Record card
Card No. Game
(Classification, Criterion B)

(Ethnic group)
1. Name (in the vernacular)

(translation)

Figure 35

Fabrication de la voiture
Construction of a car

machette

nails

necessary items

les Pointes

les nécessaires

The finished car can be pulled along on a string by a child
notre voiture terminée est tirée
par un enfant à la corde

windscreen

glace

porte
doors
2. DESCRIPTION
(principal characteristics, words in the vernacular, translation into English, description of movements.)

3. PLAYERS
31 sex
32 age
33 ethnic group
34 structure of the group (leader, alternation of roles)
35 number of players
36 factors determining co-optation (age, family, school, concession, district)

4. STRUCTURE OF THE GAME
(rules and phases of progression)
5. REWARDS, PENALTIES
6. ORIGIN OF THE GAME
(traditional, imported, mixed, by whom passed down)
7. PERIOD WHEN PLAYED
(according to season or to social life)
8. PLACE
9. TIME
10. DURATION
11. PRACTICE
(whether currently played or abandoned)
12. FUNCTION
(mimicry, competition, vertigo, chance).

Example 1 of record card
Throwing game - Baoulé

1. NAME: ABA OGO (coming from above)
2. DESCRIPTION: The players are divided into two teams. They have a ball, which they have made by rolling up a piece of cloth, leaving a tail hanging out.
   Team A starts the game by shouting aba ogo, to which Team B replies ago. Team A throws the ball; Team B has to catch it before it touches the ground.
   1st possibility The ball is caught by a B Team player, who tries to touch an opponent in Team A with it (he may chase him but without getting too close to him). If he succeeds, B Team gets a point. If he doesn't, Team A starts again.
   2nd possibility The ball touches the ground, Team A gets a point and starts again.
   The winning team is the one that gets the most points.

3. PLAYERS
31 sex : male
32 age : 10-16
33 ethnic group : Baoulé
34 structure of the group : 2 teams
35 number : 8-12 players
36 factors determining co-optation : age

4. RULES : the pursuer must not get closer to an opponent than 1 metre

5. REWARD : getting most points
6. ORIGIN OF THE GAME : traditional
7. PERIOD WHEN PLAYED : according to season
8. PLACE : courtyard
9. TIME : evening
10. DURATION : short
11. PRACTICE : currently played
12. FUNCTION : competition, chance

This game was formerly a test among the Alladians: the loser became the winner's slave, because the gods had spoken. In order to gain his freedom he had to work for the winner for a predetermined period. A trace of this custom remains today in that the winner gives a new name to the loser.


Example 2 of a record card
Chance - seed game – Baoulé

1. NAME : NIGBE
2. DESCRIPTION : Two players each in turn throw four cowrie shells and score points as follows:
   4 heads : + + + + – Kooba (2 points)
   4 tails : – – – – – gbru (10 points)
   3 heads, 1 tail : + + + – (0 points)
   3 tails, 1 head : – – – + (0 points)
   The players record their points by marks on the ground.
   When one of the players has obtained a predetermined number of points, he eats up his opponent's marks.

3. PLAYERS
31 sex : male and female
32 age : variable
33 ethnic group : Baoulé, Alladian
34 structure of the group : leader; alternation of roles
35 number : 2
36 factors determining co-optation : age, family, school, concession, district

4. RULES : the game proceeds in phases
5. REWARD : getting the most points
6. ORIGIN OF THE GAME : traditional
7. PERIOD WHEN PLAYED : according to season or to social life
8. PLACE : courtyard
9. TIME : evening
10. DURATION : short
11. PRACTICE : currently played
12. FUNCTION : competition, chance

These notes show the approaches and uses that can be made in the classroom. They can become real teaching notes in the hands of teachers who are willing to use them. Evaluations could then be added to them, for example, study of the conditions in which inculcation of a given subject may be applied to new activities. The games illustrated are taken from an inventory of games and toys which was prepared between March and December 1972 in the Bouaké district of Ivory Coast. (Cf. Volume XIII. Programme of television education: inventory of children's games and toys in Ivory Coast.)

Classification:
Criterion 3 : Activities involved
MIXED GAME
Criterion 4 : PSYCHOGENETIC ANALYSIS

EXERCISE IN VISUAL PERCEPTION, WITH RECOGNITION OF DIFFERENCES, SENSORY MOTOR EXERCISE

Structure
Hiding an object in the sand and finding it again by looking for traces.

Source of information: G.R.P.
African game

Catching the string
Take a piece of string, tie the two ends together, lay it on the ground, cover it with sand and hide it by pulling it along under the sand without letting the others see where it is hidden. The players, meanwhile, each get a piece of stick, poke it at random into the ground at the spot where they think the string is and pull. Those who manage to catch the string are the winners and may continue to play, while the losers are eliminated.

Extension
This exercise is an instruction in outside : inside topology which can lend itself to various representations.

Example
Put the names of the winners inside
Put the names of the losers outside

Figure 36

Classification:
Criterion 3 : Type of activity
PLAY-ACTING
Criterion 4 : PSYCHOGENETIC ANALYSIS

SOCIALIZING ACTIVITIES

Structure
One player is given a particular status (witch-doctor, bride, mother of a new baby...). All the other players behave in accordance with that status (showing fear towards the witch-doctor, respect for the bride, joy...).

Figure 37

African game

Mother of a new baby
The girls select one of their number to play the role of the mother of a new baby. They prepare a costume for her and decorate her with paints, flowers and necklaces. They then accompany her from house to house where she is congratulated by the adults and given presents. The young mother then goes to bed and her friends prepare a meal.

Extension
Relating a story by means of pictures, which are then re-used to invent a new story.

Classification
Criterion 3 : Activities involved
CHASING GAME
Criterion 4 : PSYCHOGENETIC ANALYSIS

LOGICAL AND SOCIAL RULES
ADOPTION AND ALTERNATION OF ROLES

Structure
At an agreed signal, one group chases the other; the pursued can win if they reach the goal without having been touched. The groups then exchange roles.

African game

Gbekle (the mice game)
One group represents the dogs; they fight and run about looking for something to eat - until they smell the mice. Another group represents the mice, with their hands buried in a heap of sand. One player is the hunter and traces paths leading away from the heap of sand; he then scrubs a stick along one of the paths and, when he touches the hand of one of the mice, he gives a very loud knock as the signal for pursuit. The dogs chase the mice, who win if they can get back and put their hands into the heap of sand without having been touched.

Figure 38: Boys from the Ivory Coast photographed while playing gbekle.

Teaching ideas
This game, in which the roles of pursuers and pursued alternate, can be used for other themes (cops and robbers, crocodiles and fish, etc.). It provides an initial stage-setting in which the children play parts.

Here are ways of relating the game. Who won? This can provide an incentive for drawing up a table, introducing the children to the use of symbols.

A table is an instrument for communication and recording. A reckoning can be made at the end of a week, but it must be noted that the case of the hunter has to be dealt with differently, either giving him a point or leaving him out of account.

The children can invent other themes and later write them up in their notebooks.
TABLE OF RESULTS

<table>
<thead>
<tr>
<th>PLAYER</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
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<tr>
<td>1st round</td>
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<td>2nd round</td>
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Players who won both rounds: e.g. Player No. 1
Players who won one round: e.g. Player No. 3
Players who have not won a round: e.g. Player No. 2

Classification
Criterion 3: Activities involved
GAMES OF CHANCE AND GUESSING GAMES
Criterion 4: PSYCHOGENETIC ANALYSIS

COGNITIVE ACTIVITIES WITH MANIPULABLE DATA
CAUSALITY

Structure
The players have a certain distance to cover, the progress of their pieces depends on the accuracy of their answers.

African game
The children mark out a spiral on the ground and arrange themselves in a circle around it. Each child has a piece, and the object of the game is to get one’s piece right to the centre of the spiral. Each child plays in turn, trying to guess in which hand the neighbour on his left is holding a pebble. If he guesses right, the player can move forward one line. If he guesses wrong, he goes back one line or stays at the starting line. The pebble passes from hand to hand; each player in succession has his guess and then hides the pebble.

A/Accumulation of scores

<table>
<thead>
<tr>
<th>PLAYER’S NAME</th>
<th>1</th>
<th>2</th>
<th>3</th>
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</thead>
<tbody>
<tr>
<td>ALI</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>YAO</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

Use of a double-entry table.
Exercise in reading and writing.

B/Description of a player’s progress

Figure 41

1) each player completes his own table
2) or an observer completes the tables
   (the children then count up the moves)

TEACHING CARDS

Teaching card I: Play at school. Buoyancy, boats
(R. Dogbeh and S. N’Diaye)
GRADE: equivalent of 3rd year primary school
PEDAGOGICAL AIM: help the child to grasp the fact that an object’s buoyancy in water depends on its weight and base area.

I. Observing
a) Objects that do or do not float easily:
   Those that float easily: have them named
   Those that do not float easily: have them named
A race in running water: matchsticks, corks, scraps of paper.
Why this difference?
b) A cork can gradually sink: stick pins into it and ask the children why it sinks.

II. Identifying certain facts
a) With small flat pieces of wood, show that a wider one will be able to carry more than a narrow one.
b) Floating downstream
   - observe the piece of wood in midstream
   - observe the piece of wood near the edge
   - and point out that the depth of the water makes a difference.

III. Comparing
a) The large boat weighs thousands of kilograms. It floats. The millet seed does not even weigh one gram, but will not float. Why?
b) Sort out the millet seeds; why do some float and others sink?
IV. Constructive action

Have the children build boats with materials collected in the natural environment. Which material is best because of its light weight?
Learning the techniques for assembling the hull, mast, cross-pieces.
Painting on the waterline.
Ballasting the boat up to this line.

V. Summing up

Light objects will float especially when they have a large surface area.

Teaching card 2: Language exercises (Juliette Raabe)

GRADE: Last year primary school
First year secondary school
PEDAGOGICAL AIM: Improve children’s understanding of grammar, morphology or syntax, increase their vocabulary, help them to remember spelling, test their knowledge in these different fields through play activities which the children enjoy.

I. Vocabulary and spelling

The various lexicon or crossword games are excellent teaching aids, as they do not require any expensive equipment.
Lexicon. The letters of the alphabet are written down or marked on pieces of paper, cardboard, plywood, etc. Each player takes seven letters and tries to make the longest word he can out of them. He then replenishes his stock of letters, forms another word, and so on until there are no letters left. The game is made more interesting by deciding on a score for each letter (the scarcer the letter, the higher the letter-score, e.g. e = 1, z = 10, and by counting up each pupil’s score on completion of each word.
Crossword Puzzles. Existing newspaper crosswords can be used, changing any clues that might be too difficult. Better still, the children can be divided into groups to work out crossword puzzles of their own with the appropriate clues (choosing a subject of interest to children such as sports, animals, etc.).
Scrabble. This game, which is very popular in many parts of the world, can easily be copied on to a board from a standard commercial model. The letters are the same as for Lexicon. The principle of play is a combination of Lexicon (each player taking so many letters with different letter-scores and having to make words out of them) and crossword puzzles (the players having to fit their words, crossword-fashion, into those that are already on the board), doing their best to use as many of the special squares on the board (doubling or trebling their letter or word score).
Remark. For all these games, ample use should be made of a dictionary.

II. Syntax

The make-a-sentence game enables the teacher to test children’s knowledge of different categories of words or their functions.

III. Vocabulary, spelling, logic, speed.

The mystery word

Definition. Guessing a word by asking a series of questions which will gradually make it possible to work out which letters it is composed of. (Commercial equivalent, using colours and in fact much less interesting: Master Mind.)
Materials: a strip of paper and a pencil for each player.
Number of players: 5 to 10.
Procedure: Each player has to write down a singular noun (with its article) on his piece of paper, fold the paper over and pass it on to his neighbour. Each player then writes down a verb, folds it over and passes it on. Once the teacher decides that the sentence is complete, each person opens up the paper he is holding and reads out the result - to shrieks of mirth all round. There are endless variations to this game, for example making the sentence more complicated, putting the verb in a particular tense, etc.
Teaching card 3: Introducing children to play-acting, dramatization
(R. Dogbeh and S. N'Diaye)

GRADE: First, second and third years of primary school
PEDAGOGICAL AIM:
1. To establish communication within the class group.
2. To get children accustomed to interpreting symbols.
3. To foster the transfer of acquired vocabulary by placing it in a play situation.

1. Important remarks:
   a) The child himself chooses the character he wants to impersonate and dresses up accordingly.
   b) He can play on his own or make up a group with the others, each person taking a role.

2. Example of a scenario: the Marabout
The child uses make-up to give himself a beard, and puts on his head or around him various accessories which will be given a function.
   It must not be forgotten that the child may pick on any object to represent any particular meaning.

3. Example of a dialogue
   The actor: I am the village marabout. I am your marabout. This is my cap. That is a tablet for writing and reading the Koran.
   Question: Haven't you got a mat to pray on?
   Answer:
   Question: Do you beat children?
   Answer:
   Question: Can you recite Bissimi Lahi (First verse of the Koran)?

4. Linguistic exercises
Examples: choose between three of these aims:
   a) I am the marabout we you are a pupil you (plural)
      he is going to recite the Koran they
   b) This is a cap here is my cap
      That is a tablet there is my prayer mat
   c) This is what we need to read and write.
      Make sentences using co-ordinated infinitives.
   d) Everyday vocabulary (finding synonyms, substituting them)
      This is my cap Do you beat children?
      This is my turban Do you hit children?

5. Retention
I you this is
you (pl) here is a
he, she, it there is a
we they

6. Application
   a) Think of a sentence using each of the words
      turban
      prayer mat

b) Think of sentences using
   1. this is
      that is, it's
   2. he, she or it
      they

Teaching card 4: Far West Mythology
(Juliette Raabe)

GRADE: Last year primary school
First year secondary school
PEDAGOGICAL AIM: Arouse children's awareness of the mythological systems they are steeped in, thus making it easier for them to understand and control them, to use them as a means of communicating with each other as if in a proper language of their own, and to create their own imaginary universe.

Hypothesis: Whether one likes it or not, certain mythologies originating abroad are widely disseminated throughout the world through toys, advertising, the cinema and television, clothing and the mass media in general. Teachers cannot ignore them and should, on the contrary, try and incorporate them into their teaching without stifling spontaneous play.

Experiments: This premise has given rise to experimental work carried out over a period of several years among pupils in their first year at secondary school in the Paris area. The experiments have shown that a mythology of this kind can build up in the child’s mind a whole store of knowledge which, if it is not turned to account by teachers, will gradually fade from their memory, without leaving any trace other than certain persistent stereotypes which can be dangerous (racist stereotypes, for example).

Materials: toys, plastic figurines, books, magazines, comics, documentary information on films, television serials, etc., posters, advertising slogans, clothing, verbal or sign language, all collected by the pupils. If possible - a still camera.

Groups of players: as the case may be, groups comprising anything from half-a-dozen pupils to the whole class.

Activities
1) Communication. Where there are problems of verbal communication, either for personal reasons (speech deficiencies, antagonism to school) or for socio-cultural reasons (immigrant children who have difficulty in mastering the language spoken in their new country, children who are confronted with a different language at school from their mother tongue, etc.), communication can be set up through games based on universal children's mythologies such as the Far West.
2) Awareness. An attempt should be made to elicit requests for additional information - When did the cowboys live? What has happened to the Indians? etc. - which will arouse a critical awareness of the myth and how it functions. Stark demystification is dangerous and should be avoided, however, for it would defeat the object of the exercise by spoiling the game and undermining the child's imagination. Instead, an attempt should be made to enhance the scope for play in the subject concerned. The child will then discover that he has the use of a myth without being bound by it, just as he has the use of speech which, although it is subject to strict morphological, semantic and syntax rules, enables him to express what he wants, when he wants.

Suggested exercises

1) Transposing a story from one mode of expression to another, e.g. telling the story of a television serial, acting a comic strip, or drawing a comic strip from a simple text.

2) Finding equivalent mythical subjects, e.g. the adventures of a cowboy can become the adventures of a sailor or a spaceman or comparing the travels of Ulysses in the Mediterranean, a pioneer in the Wild West and an astronaut in space.

3) Inventing, one by one or, preferably, as a group, stories on the cowboy theme e.g. dependence and freedom. Arranging plastic figurines in a natural setting: figurines of this kind are commonplace and inexpensive to buy, and can be collected or made (in which case the question will arise of symbolizing the various roles), to compose living tableaux which can then be sketched or photographed (see below). In doing this, the children can make up their own Westerns, using the tableaux or successive sequences as an approach to problems of narration, (scenery, characters, etc.).

4) Dramatization. Scenes can be improvised or, alternatively, worked out over a number of sessions. With everybody contributing, spontaneous theatrical performances can be given without running the risk, a serious one, of involuntarily entering the field of psychodrama. In the case of a Far West story, the dissociation of play is guaranteed, even if the child is intensely involved in his part. In addition, the children's knowledge of the subject and their interest in it preclude lengthy vain discussions on the choice of a subject. Here the children will start out with a number of basic elements setting, situations, characters), and can then give free rein to their imagination in an atmosphere of intense motivation and complete creative freedom, without any excessive emotional tension. At the end of one group improvisation session, a pupil announced, 'Well, we don't need to go and see cowboy films any more, we can make them ourselves'.

Teaching card 5: Play and arithmetic (Juliette Raabe)

In this study, we have referred on several occasions to the major games of logic, the different parts of the world in which they are found corresponding to the various types of society. Games such as draughts, chess or cards undoubtedly lend themselves to interesting pedagogical uses, especially arithmetical applications.

In this field, the Baoulé game of twelve squares, awélé, is, as we have pointed out on several occasions, interesting from a sociological and ethnological point of view, and is particularly easy to adapt for teaching purposes. There are a number of versions and it is known by hundreds of different names. Despite numerous variations on the rules, it is a unique and specific game played all over Africa, the Mediterranean, South-East Asia and Central America. Teachers should bear in mind the local version of the game, to encourage its being played at school, and to derive as many teaching applications from it as possible. Even in parts of the world where it is not played at all, such as Europe, there are many instances where it would be worthwhile introducing it into the classroom, and indeed there is no particular difficulty involved in doing so.

The materials consist of a gamesboard and pieces, which may be precious objects of considerable artistic value but can also be improvised by simply digging holes in the ground or in the sand, or by lining up a series of small receptacles, and using any small objects as pieces, provided a few dozen of them can be collected without any difficulty (pebbles, animal droppings, shells, seeds, etc.).

Figure 42: With plastic figurines placed in a natural setting, children can make up their own westerns. (Photo: J. Raabe)

Figure 43: All that is needed for a good game of awélé is a patch of sand and a few pebbles. (Collection Musée de l'homme; photo: Dr. Pales)

The rules are very simple to explain and to learn, and yet they can be used as the basis for a highly elaborate strategy. The game begins with two players sitting opposite each other, each with a row of 5, 6 or 7 squares (or holes). Before they start, each player is given so many pieces per square, each player's pieces being absolutely identical with his opponent's.
Procedure: The players take it in turns to lift the pieces out of one of their holes and distribute them one by one into the other holes. According to the hole in which the last piece lands, the player may or may not win a number of pieces.

End of the game: The one who takes most pieces wins. The game is derived from an old abacus, which makes it possible to do the four operations without knowing the theoretical principles behind them or dealing with figures.

For children in the twentieth century, the game provides an excellent transition between the concrete and the abstract, helps them to grasp the notions of number and relationships between the dividend (D), the divisor (d) the quotient (q) and the number of squares used (n) in division (with or without remainder).

1) Share out the 48 pieces:

If we play with 12 squares — how many pieces each?
If we play with 8 squares — how many pieces each?
If we play with 6 squares — how many pieces each?

2) Observation:

2.1 Have two children play the game and make a note of the following facts: the relationship between the dividend (D) and the divisor (d) must be understood in order to find the quotient q. (What does the quotient enable you to do?)

2.2 To make the operation clearer, study one example:

- change the dividend
- change the divisor

3) Identification:

3.1 A good player should be able to identify the following factors properly:

\[ D = \text{the number of pieces to be distributed} \]
\[ n = \text{the number of squares to be used} \]
\[ a = \text{the number of pieces which will be in the squares on which a piece has been placed.} \]

3.2 In order to win, the last piece to be played must land on a square with something in it.

4) Using the game as an exercise:

Learning how to play:

1) a game with 12 squares
2) a game with 8 squares
3) a game with 4 squares

It should also be remembered that a player must:

- make up even numbers in his opponent's squares, and
- make up these quantities by accumulating pieces played in the opponent's field, either by taking them out of his own stock or through some tactical operation to be worked out.

Hypotheses:

A is to play

\[ \begin{array}{cccccc}
\text{b1} & \text{b2} & \text{b3} & \text{b4} & \text{b5} & \text{b6} \\
\text{a1} & \text{a2} & \text{a3} & \text{a4} & \text{a5} & \text{a6}
\end{array} \]

\[ \begin{array}{cccccc}
\text{0} & \text{0} & \text{0} & \text{0} & \text{0} & \text{0} \\
\text{0} & \text{0} & \text{0} & \text{0} & \text{0} & \text{0}
\end{array} \]

In order to win something, he has 3 alternatives:

\[ \begin{array}{cccc}
a2 & a4 & a6 \\
10 & 5 & 2
\end{array} \]

Which is the best move?

B is to play

\[ \begin{array}{cccccc}
\text{b1} & \text{b2} & \text{b3} & \text{b4} & \text{b5} & \text{b6} \\
\text{a1} & \text{a2} & \text{a3} & \text{a4} & \text{a5} & \text{a6}
\end{array} \]

\[ \begin{array}{cccccc}
\text{0} & \text{0} & \text{0} & \text{0} & \text{0} & \text{0} \\
\text{0} & \text{0} & \text{0} & \text{0} & \text{0} & \text{0}
\end{array} \]

B has only 2 alternatives. What will he win in each case?

Figure 44

What will be the position of the pieces on the board afterwards?

Draw a diagram.

Suggest a strategy.

Look at the possibilities offered by an 8 square game.

5) Retention:

Self-teaching. In each group, the non-initiated are taught by their fellow-players who know how to play.

Exercise. An awelé is marked out in the sand. Each player who knows the game chooses a less experienced opponent so that he will improve.

Transposing the tactics of the game into arithmetical terms. E.g. \((18 : 6) + 1 = 4\) win; \((18 : 6) + 0 = 3\) lose.

6) Application:

A group game involving observation under supervision. Some of the tactics used in the game can be noted to be reset as arithmetical problems.

Teaching card 6: The ox horn (Mongolian mathematical game)

(Asisia Popova)

The ox horn (ixirin ever) is a traditional counting game played by children in all Mongolian ethnic groups - the present Mongolian People's Republic, Inner Mongolia (China) and the Buryat Autonomous Soviet Socialist Republic. It is also popular amongst children in Tuva country (U.S.S.R.) to the north-west of Mongolia and the west of Buryatiya.

GRADE: First three years of primary school. Formerly, in pre-revolutionary times, children would play this game from the age of 5 or 6, that is, from the time they started looking after the calves.

PEDAGOGICAL AIM:

a) The game fosters the development of logical reasoning and accustoms the child to mathematical processes. This

is why it and a series of other games in the same category are used in teaching mathematics in primary school.
b) Being explicitly associated with cattle-rearing and hunting, which are fundamental economic activities among the pastoral and hunting peoples of Central Asia and Siberia, this game also facilitates the assimilation of cultural values.
c) Playing the horn game and other games of the same kind is a form of initial training for chess which is rated very highly in this part of the world.

DESCRIPTION OF THE GAME

NUMBER OF PLAYERS: two

MATERIALS:
1. The gaming board is a wooden board with a horn shape cut into it and an uneven number of dots or stopping-points marked out along the edge, joined up by a zig-zag line (cf. Fig. 45). The horn can also be drawn on a piece of paper. There are always more than ten stopping-points; our example shows a horn with nineteen points.

Variant:
The Mongol game entitled neg tugal tuux [leading the calf, shown in Fig. 46] is played in exactly the same way as the horn game. The outline is rectangular in shape and usually has a large number of points along the edges - in this case sixty-three.

2. Pieces. For most of their simple rural games, the Mongols and the Tuva use knuckle-bones, usually sheep's or, more seldom, stags'.

The four sides of a knuckle-bone are given the following names:
- a) the flat side: horse (mor')
- b) the curving side: camel or cow (temee, uxor)
- c) the rounded side: sheep (xon')
- d) the hollow side: goat (jamaa)

For the horn game, three knuckle-bones are used, comprising:
- a calf (curving side up), or, in some regions, a stag (horse side up);
- two boys (two knuckle-bones with the sheep side up) or hunters.

Sometimes a fourth knuckle-bone representing the mother cow is added. The cow, whose function is purely symbolic, is of course teamed up with the calf.

For the calf game, the boy-cowherds are represented by small wooden carved figures of horsemen. Their opponent, the calf, is also a carved wooden figurine.

3. Dice are thrown to decide who will have the different pieces. Two knuckle-bones are used for dice and are thrown by each of the players in turn. The first to get a horse has the calf (or stag) and the other, player B, will have the children (or hunter).

4. Starting position. There are three ways of placing the pieces at the start of the game.

a) The player who has a cow and a calf (A) puts them on points 1 and 4 respectively (Fig. 45). His cow will then stay there until the end of the game, for she is only there to mark the position hoped for by the calf. Player B will accordingly put his herdboys in positions 2 and 3.
b) Player A puts his stag (Fig. 45) in position 3, and B his huntsmen in positions 1 and 2.
c) The little horsemen in Figure 46 are placed ahead of the calf.

5) First move.
a) In the first horn game shown and the game in Fig. 46, player B (the one with the herdboys) goes first.
b) In the second horn game shown, player A (the one with the stag) is the first to play.

6. Description of the game. The players take it in turns to play. At each turn, a player moves a piece - either A or one of the B's - forward to one or other of the positions ahead of him; thus for example, player A can flee with his stag to either position 4 or 5.
7. **Object of the game.** Player B chases the calf (or stag) and tries to trap it in the last position; player A tries to escape and go back to point 1.

**SOCIAL ASPECT OF THE GAME**

Both the terms used and the procedure of the games involving calves are connected with the methods of cattle-rearing employed specifically by pastoral, nomadic peoples. For the Mongols never wean calves from their mothers. They let the calves suck from their mothers in the morning, then separate them and lead the calves off to pasture, while the mothers are kept tied up. Naturally the calves are always trying to escape and return to their mothers. It is the children who have the difficult task of leading the calves to pasture.

The game shown in Figure 45 is obviously associated with stag-hunting.

**APPLICATION**

The teacher must prepare all the equipment he will need to explain the rules and the object of the game to the children when playing it with them. He may then suggest the pupils make their own boards and pieces.

The materials needed for the game can be improvised. For instance, the diagram can be drawn on a piece of cardboard 35 to 40 cm. long by 25 to 30 cm. wide. Or, instead of cardboard, a piece of felt or other strong cloth can be used, or simply a piece of paper. The pieces (the stag (or calf) and hunters (or cowherds) can be represented by wooden, lead or clay figures (3 to 6 cm. tall). Two different kinds of pieces can also be borrowed from the little horses games or from any other game involving the use of pieces. And then of course real or artificial knuckle-bones can be used, in which case it is advisable to paint the one used for the stag (or calf) a different colour.

**Remark.** It is a simple game and the teacher will realize that there is a winning strategy. But the children must not be told what it is and must be left to work out the best ways of playing for themselves.
Use of play activities for educational purposes
Yahaya S. Toureh

GENERAL REMARKS

The twentieth century is undoubtedly the century in which there is a particularly high regard for play activities and their important role in children's education. For whereas in past centuries there have been authors who stressed the significance of play, it was for its entertainment value and not as an indispensable tool for more effective teaching.

That our century should have a better grasp of the potential role of play activities is due to the fact that, with the progress in psychology, people have now realized that education can no longer be based on methods designed to produce walking encyclopaedias, but that it should promote learning in the broader sense, by starting out from various forms of contact with the concrete and proceeding to its abstract and intellectual representation. The aim of modern teaching is consequently to be better adapted to the child, instead of adapting the child to its ends. However, this attitude, legitimate though it is, all too often leads adults to encroach upon the child's universe and ply him with an over-abundance of new playthings and play activities. Their excuse is that they want to help expose the children to current progress in culture, science and technology. But there are risks involved for the child and they should be brought home to teachers and educators so that they may take care to mitigate, or avoid if possible, any adverse effects of such an approach.

With this proviso, all play activities and materials should be utilized in so far as they can be a source of inspiration to teachers seeking to devise methods and a language of learning that, after all, will come most naturally to the children. With this end in view, the first step should therefore be to make a study of games and toys to be found in the child's universe and ply him with an over-abundance of new playthings and play activities. Their excuse is that they want to help expose the children to current progress in culture, science and technology. But there are risks involved for the child and they should be brought home to teachers and educators so that they may take care to mitigate, or avoid if possible, any adverse effects of such an approach.

With this proviso, all play activities and materials should be utilized in so far as they can be a source of inspiration to teachers seeking to devise methods and a language of learning that, after all, will come most naturally to the children. With this end in view, the first step should therefore be to make a study of games and toys to be found in the child's own environment, in other words, endogenous games and toys. There are several reasons for this. First, a child, whatever his age, belongs to a given culture which must be respected and understood. Grasping the various aspects of that culture may therefore help the teacher to understand the workings of his young charges' minds, their beliefs, experiences and aspirations, and on that basis work out a teaching strategy. Next, it is less expensive to use endogenous games and playthings than imported ones which, besides, are not necessarily suitable. Also, the former can be found on the spot (or made from local natural or artificial materials, using individual or group skills). Finally, by making use of endogenous play activities and objects, the teacher will be able to evaluate them in terms of the aims he wishes to attain, or in other words, arrive at an objective assessment of the educational value of the games and play objects under review. He will come to one of three conclusions: the play activities and playthings are considered to respond perfectly to the goals to be attained; the activities and objects would be worth improving upon to bring them into line with these goals, while preserving their original character; or it appears necessary to introduce novel activities and objects (or even substitute them for local ones), since they will be more appropriate to the needs arising from changes in living conditions.

What should be avoided is persisting in preserving and trying to keep alive play activities and playthings which no longer serve any purpose, however much they may be respected or admired. People should be forewarned of this danger, especially in certain cultural regions where fetishism of this kind results in games and toys being carefully preserved in a fossilized state, when they should really have been abandoned, having become a dead letter in a culture of which they are no longer the true reflection. From the teacher's point of view, the only criterion affecting his choice of play activities and equipment is their educational potential and their capacity to convey an accessible image of the multiple and complex reality to be taught to young children. For teachers must not lose sight of the fact that it is partly or entirely through play, coupled with a child's particular perception of the world around him and his behaviour towards it, that a developing personality emerges and asserts itself. That world is made up of both his experience and his hopes.

TYPES OF PLAY ACTIVITIES AND MATERIALS

The typology of play activities is based on the various capacities involved, whether they be physical, intellectual, affective, aesthetic or technological. All these capacities
are contingent on the normal development and degree of maturity of the various functions and aptitudes enabling an individual to confront, master and modify at will both the physical and the abstract world as he perceives or imagines them.

Play materials are the ideal instruments through which play activities can materialize and be preserved and communicated from the individual to the group and vice versa. There seems no point in drawing up a list of play activities and materials here, for it would be neither restrictive nor exhaustive, since each generation can exclude some items or add new ones as it thinks fit, and in accordance with the degree of knowledge, science and technology reached by its culture.

To the teacher, and to him alone, therefore, will fall the responsibility of selecting playthings that are in keeping with the requirements of the goals he has set himself, out of the long list of games and playthings with which he is familiar. He will also be required to bear in mind the child's age (and sometimes also their sex) and level of development in making his choice. This necessarily implies a thorough knowledge of psychology and learning techniques.

There are three stages in the utilization of play activities and materials for teaching purposes, which can be described as follows. First, Stage A: Knowing the child, involves his age, inclinations, and stage in development, the skills involved, the process of adopted activity (procedure, linking up various stages in procedure), the rules (compulsory/discretionary, and what is at stake. Next, Stage B: Knowledge of materials employed, involves their origin (natural or artificial), structure (simple or complex), the technique or manner of obtaining or of making the equipment, potential uses, the degree of interest shown by the child (whence observation of the child's interest in terms of: the reasons for it, its intensity, how long it is sustained, frequency, and various ways of arousing it) and establishing the role of the environment (and of the teacher) which may be stimulating, repressive, authoritarian or co-operative. Finally, Stage C: Definition of learning goals concerns structural analysis of stages in the planned process (various stages, interactions with the process, content and capacity of content to arouse interest), and establishing possible ways of transforming the process, using play as a source of inspiration and play equipment to make it more appealing and more accessible to the child. This involves evolving methods for evaluating the results in terms of teaching goals and conditions under which new learning process can be transferred.

The description of these various stages shows that there may be close links between learning and games, and that the teacher's role is to discover or create them. If he succeeds, he will merely be responding to a law of nature, whereby the child unconsciously teaches himself in play.

Some hints on the use of play materials

Play materials may consist of words and sentences which will help the child to exercise his wits at thinking up or remembering stories, tales, fables or legends. On these occasions, words and sentences become objects like any other in the hands of the child, and at times he will manipulate them in an extremely unconscious manner.

This type of equipment is useful, inter alia, for developing a child's imagination, memory and mastery of language (grammar and vocabulary). Furthermore, by listening, or by telling a story himself, a child can (in his imagination) impersonate a hero, play his part and feel as the hero feels, both in victory and defeat.

This verbal equipment, of which we have attempted to describe the twofold psychological and linguistic function, has a particularly significant role in education in societies with an exclusively oral culture. It should therefore be a foremost concern of teachers. Their first task will be to collect verbal materials, and then learn how to put them across to the children, so that they may derive from these different forms of oral expression both knowledge and wisdom.

Other, more concrete, endogenous play materials exist which, if they are to be used by children, entail a spontaneous grasp of certain elementary notions of physics (such as weight, density, resistance, force, motion, etc.), chemistry (such as elements and compounds, analysis and synthesis of component elements, etc.), mathematics such as numeration, the different operations, geometric figures, volumes (using drawings or shapes cut out, folded, pasted together, keeping the right proportions), and technology. The basic notions of technology are found among those that the child encounters most frequently in everyday life and uses when making materials for his games. The inspiration for such materials can come from traditional or foreign models or, as we have already said, they can be self-inspired.

Such play materials of a technological nature can be weapons (gun, bow and arrow, knife, club, grappling-iron, catapult, sling, various types of trap, etc.), household items (lamp, candle, various types of 'crockery' — wood, metal, or earthenware — table, bed and bedding, stove, etc.), vehicles (canoe, raft, sailing, rowing or motor boat, aeroplane, cart or carriage, sledges, motor car, bicycle, etc.), simple or compound objects producing or reproducing rhythm, motion, sounds, pictures and colours (roundabout, swing, top, xylophone, flute, zither, tambourine, kaleidoscope, etc.), reproductions of animals and human beings (sawdust and rag dolls, puppets, cut-out pictures to be projected for shadow plays, reproductions of pets, etc.), and basic materials (plaiting and weaving).

Children will be particularly willing to learn these techniques since they take great delight in producing new shapes out of raw materials and finding new purposes for them all on their own. These activities can be compared to do-it-yourself jobs in the best sense of the term, bringing out a child's natural know-how, something that the school environment should not stifle, for when all is said and done, the main purpose of any kind of education is to develop in a child an awareness of his personal aptitudes and abilities, enhancing such capacities as will be useful to him in his later adult and professional life.

SUGGESTIONS

Teaching mathematics. We shall not dwell upon the progress made in this field with the new maths. Let us simply recall the concepts they have introduced such as sets, series, inclusion, exclusion, equivalence, equality, surface, etc. Materials used include small pebbles, geometric figures reproduced by tracing, volumes by cutting out, folding and pasting, forming angles, etc.
Teaching physics. Learning notions of weight, density, buoyancy, motion, etc.

1) Calculating weight
	Materials used: making different types.

Figure 47: Roman scales:

2) Measuring motion
	Gravity, acceleration, force, buoyancy
	Materials used:

Figure 48: Roberval’s balance:

Figure 49: a tilted board

Figure 50: a surface of water

Teaching chemistry. Analysing the different proportions of chemical components in a substance by heating, dissolving or other methods.

Figure 51:
	Materials used: shallow vessels, phials or other suitable receptacles.

Like the materials based on technology, all these materials can be found amongst what the child can or could manage to procure or produce by himself. Obviously, the teacher or adult can in certain specific cases offer advice to enable the child to carry through the various projects he has devised for himself or that are suggested to him.

PLAY ACTIVITIES AND MATERIALS IN SCHOOL

Whereas in the past these materials and activities played a minor role in the school environment, this does not apply today. For observation of what children do and the effect these actions have on the shaping of their personality have led educators to examine them more attentively, with the result that manual activities (which may legitimately include play activities) now tend to be the alpha and omega of all intellectual and technical education. In this sense, it can be said that educational aims, which in the past were purely theoretical, have now become more practical. In order to fulfil this ambition a number of conditions should be met. The first is the revision and reorganization of curricula and timetables so that know-how is placed, as it deserves, on a par with straightforward knowledge. Next comes a mustering of resources, such as specialized and properly equipped premises, and leadership by trained teachers or craftsmen attached to school institutions. Thirdly, there is the need for a place in which the children’s production can be exhibited. Finally, prizes should be awarded to the most talented children.

What applies to the expression of scientific and technological potential is also true of the various plastic and artistic forms of expression. Children, whatever their culture, spontaneously display in these fields astonishing talent which teachers must be capable of observing and guiding for educational purposes.
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III. SOCIOLOGICAL APPROACHES


IV. HISTORICAL AND ETHNOLOGICAL APPROACHES


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