

# The Sand Tray: Update 1970 - 1990

Ruth Pickford

## Summary

*The aim of this paper has been to draw attention to ways in which the Lowenfeld World Technique has been used or studied in the last twenty years since the earlier account (Bowyer, 1970) which summarised literature of the 1926-1968 period.*

*The last twenty years have shown extensions in the use of the Margaret Lowenfeld 'World' or Sand Tray technique beyond its traditional use in individual therapy and diagnosis. It has been used as a tool in experimental research, it has shown itself adaptable to use by two, three or four persons working together; it is used as a 'resource' in various educational and social situations.*

## MATERIALS AND USES

For those unfamiliar with the World Technique, a brief description seems desirable. The materials consist of 200 to 300 small toys, including people, animals, buildings, fences, trees and miscellaneous items such as ladders, stones, benches, which are to be arranged on sand in a tray. The tray may be of metal, wood or plastic, of any convenient size, but deep enough to hold sand, which can be manipulated for roads or mountains. The sand may be moistened beforehand, or a jug of water may be supplied, along with a box of dry sand, useful for contrast of light and dark, or for a sand storm. Many of the toys can be home-made at little cost. Lowenfeld believed it better to build up a collection of items in this way and from local shops, rather than to have a standard set which might seem unrealistic in different countries. She deplored efforts to turn her technique into a psychometric direction as Buhler (1949) did and insisted that it was a projective method for mutual understanding, and not a test (Semeonoff, 1976). It is not possible to have items in scale, but the fact that a

cow is as tall as a house, though this may evoke a remark from a critical twelve-year-old, has not proved a deterrent to enjoying the activity.

It is possible to administer the Sand Tray without words, and indeed young children begin without waiting for explanation. Older children and adults can be invited to make whatever they like in the Sand Tray - a scene or a happening, remembered or imagined. Lowenfeld introduced the materials after discussion about picture thinking as a bridge for people divided by not speaking the same language. She interpreted what was happening, i.e. the salient points in the Sand Tray theme. Eikhoff (1952) in her paper 'Dreams in Sand' wrote that interpretations can be made plain by actions, 'fences and barriers can be pulled down gently, wild animal feelings liberated with impunity'. Other therapists, e.g. Axline (1964) prefer not to intervene or interpret, but to concentrate on understanding clients' spontaneous comments on what their Worlds mean to them.

Mention should be made of the effect of the Sand Tray on adult patients in a Mental Deficiency Hospital, 35 of whom were on record as 'untestable' but who, except for one, far surpassed in awareness and conversation, what was expected of them. Some of their remarks were:

*Usually we are given questions and answers. This is better. We are not good at questions and answers.*

*When I came in, I thought I would not be able to do anything. You will tell Mr. X that I did all right?  
Oh, but he will see it in the files.*

*Kids' stuff! (said scornfully by a young woman who then wanted to make several Worlds).*

*Cor, what nice things!*

*You see your thoughts set out, sort of.*

## **RESEARCH**

It is not possible in this paper to do justice to either of the two research projects mentioned below by describing them in detail. The aim is only to draw attention to aspects which concern the Sand Tray.

For his research on communication and social adjustment in 30 severely deaf, 30 partially deaf, and 30 hearing children, at two age levels (5-8 and 8-12), Robin Gilmour (1971) used along with other controlled observation situations, the Euro-

pean variant of the Lowenfeld Technique, devised by Arthus (Zust, 1963; Mucchielli, 1960). Although the Village Test does not use sand, it was found in an earlier comparison to be scorable for adjustment in the same way as for 'Worlds' (Bowyer et al., 1966). So it was chosen as being more portable. An innovation was to ask his 90 subjects, in pairs, to 'make a village together', each of the children participated in making two villages, one with a friend, and one with a non-friend. Two interesting qualitative findings were the many different modes of co-operating, and the variety of ways of communicating. The deaf children used touching, gestures, signs, facial expressions, mouthing without voice (useful for lip-reading) as well as speech. The hearing children confined themselves almost entirely to speech.

An in-depth study on the role of communication variables and field dependence/independence in the social adjustment of deaf children (Gillies, 1982) used the Lowenfeld 'World' materials along with the Donaldson Language Tests (Montgomery, 1979), the Bristol Social Adjustment Guide (Stott, 1971) and the children's edition of the Embedded Figures Test (Witkin et al., 1971). The subjects were 66 profoundly deaf school children (33 males and 33 females) drawn from the two largest schools for the deaf in Glasgow, serving the West of Scotland and having residential as well as day pupils. This sample was the total of all available subjects who satisfied six selection criteria, viz. profoundly deaf, minimum loss for speech 70dB in the better ear; pre-lingually deaf, onset before two years; no evidence of other physical or neurological impairment; attendance in special educational setting from age 6; minimum recorded I.Q. of 70 on recent tests; availability of information on the above and on family background.

Because of the difficulty of transporting the normal tray and toy cabinet, Gillies designed a carrying box with a lid which serves also as the sand tray. The box is divided into six compartments for the following 235 toys:

Humans 50, Animals 55, Landscape objects 45,  
Buildings 30, Transport 25, Miscellaneous 30.  
Sand was carried in a separate covered container.  
Measurements of box 65cm. x 65cm. x 8cm.

Assessment of the constructions was done in Gilmour's research by a consensus arrived at by a team who had used the technique in earlier departmental research, and for whom slides were projected on to a screen at fortnightly meetings. In Gillies' research, a specialist in the technique judged from photographs with accompanying descriptions of the process of construction. The method of scoring combined consideration of the construction as a whole with the presence or absence of pathological signs (Bowyer et al., 1966).

A subsidiary aim of Gillies' study was to explore Wenar's (1954) suggestion that apart from its use as a projective technique for investigating personality and

adjustment it might also be used to measure 'integrative ability'. Both Wenar's view of 'integrative ability' and Witkin's concept of 'field independence' involve an 'ability or disposition to analyse and recombine elements in an active process of integration into meaningful wholes', related to 'the ability to deal with new and potentially stressful situations in constructive ways'. Although Gillies was disappointed in his expectation of finding a correlation between scores for 'integrated' worlds and those for the Bristol Social Adjustment Guide, nevertheless he 'remains convinced after many hours spent administering the 'World' to hearing-handicapped children, that its potential as a source of insight into the perceptual /cognitive processes of children with whom normal communication presents severe difficulties remains largely untapped, having been over-shadowed by the more familiar role of the technique in personality assessment and in therapy'.

### **THE SAND TRAY AS A 'RESOURCE'**

Mention should be made of the Sand Tray as a valuable resource in the play of 'normal' children. For several years, neighbouring children have been coming to visit the author and have sometimes asked if they might 'play with the sand'. Occasionally siblings bring cousins, and as many as four persons work together on the same sand tray. As these children are not patients, clients or research subjects, they are left on their own with the sand tray and toys, but they always come to say 'we have finished' and are eager to show what they have made and to tell its story. It is interesting that they come to a decisive point when they are certain that their plan is complete and their problem resolved, so to speak. Often a sequence of 'Worlds' shows a recurring theme, e.g. a mountain of sand up which climb a number of human beings and their dog, some being helped, some falling back, others being shot at, or buried in the sand. Such mountain themes, reported by others, may also be a symbol of difficulties to be overcome, and a source of relief.

In 1989 and again in 1990 Isobel Montgomery, who is an artist and counsellor, was asked by the local authority to run two separate courses, each for one week, for twelve 'carers' seconded from various social work posts, e.g. adolescent unit, geriatric centres, helping with a handicapped child at home. In each of the four weeks a session was given to the Sand Tray, and a follow-up inquiry found that it had been introduced in all of the situations in which the 'carers' worked. During the 1970's, the technique was introduced in Art Therapy courses, e.g. in the College of Art and Design in St. Albans. The 1990 volume of the Japanese Bulletin of Art has four papers about the Sand Tray; the meaning of changes in the kind of items used; its use with a schizophrenic boy in a psychiatric Day Centre; the productions of alcoholics; comparisons of Sand Play and collages.

The authors are Iri and Ohmori, Koume, Kusan and Honda, and Moritani (1990). Brief summaries are given in English.

The use of the Lowenfeld materials with adults is illustrated by a Jungian psychologist (Ryce-Menuhin, 1983) who discusses and interprets eight sand pictures made by a 30-year-old man who came into therapy for a year. These sand tray pictures illustrate Jung's four stages of psychotherapy: Confession (sand tray 1), Elucidation (2, 3, 4), Education (5), Transformation (6, 7, 8).

Borecky (1989), a clinical psychologist in Prague, followed up an idea of Kamp (1970) about the potential of sand tray worlds as a developmental scale. He used a sample of 400 subjects in six age groups (2-4 years up to 20 - and over 20), and in three diagnostic groups, normal, mentally retarded, and emotionally disturbed. He studied spatial, topographical, dramatic and symbolic features of the series of Worlds in the light of Piaget's scheme of development, and found that it worked, i.e. he was able to verify his hypotheses about the transformations in the play from egocentrism at mental ages 2-7 to decentering and finally formal structures.

It seems unlikely, specially with clinical subjects, that there should be any linear, straightforward development in the Worlds of individuals who use the materials to express their personal problems, but an established developmental scale would be an advantage for monitoring regressions and progress, or plateaux.

Not unrelated to such measurement problems is the research on the retest reliability of the Lowenfeld technique by Shinobu Aoki (1988), who first used a global, matching method with judges shown photographs of Worlds administered individually twice at intervals of 2-3 weeks; judges were asked to pair those which had been made by the same person. There was moderate success, but not above .05 level of significance. Judges who were experienced with the technique had much more success, and also with the task of assigning the photographs correctly to each of three groups - normal, delinquent and maladjusted. Correspondence was easier to detect in the maladjusted. As Aoki says, 'they have a certain problem in the core of their mind, and because of it they expressed constantly their own world in successive sessions'. A second study compared 'facts which are easy to grasp objectively' - time taken, number and type of toys, use of sand, but Aoki is not satisfied with this, which ignores meaning. She says, 'For example, frustration was expressed variously as warfare, a traffic accident or a struggle of animals. On the surface, themes are changeable, but we must perceive the psychodynamics of what is under the external appearance. Henceforth, the research in such directions will become indispensable'.

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29*  
The 1990 volume of the Japanese Bulletin of Arts Therapy has four papers on the use of the Sand Tray; on the meaning of changes in the kind of items used (Irie, 1990); on the effects of using the Sand Tray with a schizophrenic boy in a psychiatric day centre; the productions of alcoholics; the inspiration given by the Sand Tray collections for the beginning of the use of collages in psychotherapy, and comparison of Sand Trays and Collages.

*Mrs. Ruth Pickford,*

*34 Morven Road,  
GLASGOW G61 3BX*