

INTERACTIVE PLAYS

Introduction

In the book on DesignPlays titled “Conversations with Form” seven plays are discussed. They are solo plays intended to gain skills in handling architectural forms and form transformation.

A next step is of course to use plays where designers interact and must coordinate thematically.

The “Silent Game” is perhaps the most essential play to exercise relational skills in design. It can be done in a variety of ways, but at all times it asks two (or more) players to jointly make a single configuration by taking turns making moves. The players are not allowed to speak during play. They must understand each other's intentions by reading the themes introduced in the play. Somewhat in the way you read themes in an urban environment when you are asked to add a building for instance. The important aspect is of course that the forms themselves are the only means of communication.

There are many ways in which a “silent game” could be set up, but the major distinction can be made by either playing with architectural elements making a joint configuration that is to be a building on the one hand and, on the other hand, doing a board game by arranging material parts that have nothing to do with architecture as such.

The last way to play allows moves to be made quickly and easily keeping the play going forward, but it also has the

advantage that it asks you to arrange forms and patterns that have general meaning in all makings of form: for instance: linear or symmetrical or concentric arrangements, or moves that give direction to a form or enclose a space, patterns on which variations can be done, and so on.

The silent game as board game is therefore a good way to develop your interactive form making skills while moves are easy to make. and you are dealing with general principles of form making.

That is not to say that a silent game cannot be played with profit using architectural elements, for instance in jointly making a 3D SketchUp model. But I recommend beginning with the abstract board game variant.

The source of the silent game

The silent game was first introduced as one of the more attractive and successful games in a larger study on “Concept Design Games” that we did at MIT, funded by and reported to the National Science Foundation. (1987 Habraken, Gross, Anderson, Dale, Hamdi, Palleroni, Saslaw and Wang) That study was entirely devoted to abstract, non-architectural form making board games. A very different approach from the idea of DesignPlays mentioned above. However the Silent Game also can be applied as an introduction to interactive DesignPlays. For that reason the part of the NSF report that discusses the Silent Game is copied in its entirety following this introduction.

What to play with

The NSF report has two parts: “Book one. Developing” is about the general principles of making design games while “Book Two, Playing” gives example plays.

In the first book of that report we also speak of the “Technical Universe” for the games, meaning the material parts selected to play with. In our own examples we used simple objects that can be bought in any hardware store: Nails and washers of various sizes and also the parts that make a wooden clothespin. These parts turned out to be very useful and enticing, perhaps because they had no relation at all to any architectural form as such. Later I have heard of plays done with Lego pieces. They are already more architectural which I personally find can

become confusing when players start to see architectural or urban forms in what they are doing. At a certain time we made for ourselves a kit of parts in hard plastic of different colours, proportions, sizes and thickness inspired by the clothespins. nails and washers.



A SILENT GAME

Summary

The Silent game is about implicit understanding among design participants through making patterns and conjecturing patterns in making forms. The game involves two kinds of acts: inventing patterns and guessing patterns. The game need at least two players. Players take turns inventing patterns for the other(s) to guess, and guessing the patterns made by other players. Patterns involve selection of pieces and spatial relations among the pieces and are expressed only by placing pieces in the site. A player is assumed to understand a pattern if s/he can make moves to continue the configuration without objections from the other player(s). Patterns remain implicit throughout the play, and no verbal or any other kind of explicit communication is allowed. Therefore the game is silent.

1 Game Rules

1. Technical Universe

Selection: The pieces in this game should not be predetermined. Selection rules are made implicitly during play.

Distribution: All rules concerning relations among pieces, and/or relations of the site are made during play.

2. Site

- * Any two-dimensional board serves as a site in the Silent Game.
- * The site as given may also have features

3. Program

there is no explicit program.

4. Roles

The game has two roles: pattern-maker and pattern-follower. Except for the first and the last turns, each player actually plays both roles each turn: first guessing the patterns the other player had in mind when moving earlier and then following that pattern, then making a new pattern that the other player must, in turn, follow.

5. Moves

Only one kind of move can be made:
* Place a piece on the site.

6. Goals

* The Silent Game has no explicit goal for players.

7. Protocol

- * Only one pattern can be introduced at a time.
- * Players must determine in advance the maximum number of pieces a player may add in each turn, or the number of times a pattern must be repeated when introduced. (as the site is restricted in size, players should not deploy pieces unlimited.
- * Players take turns making moves.
- * The player who makes the first move may only introduce a pattern; the last player to play may only follow a pattern.
- * Patterns may involve three things:
 - 1) The kind of pieces to be introduced. (pieces are distinguished by size, colour and shape).
 - 2) Spatial relations between pieces.
 - 3) Spatial relations between pieces and the site.

* Patterns are expressed only through placing pieces: no explicit description of an kind is allowed.

* At each turn each player can do the following:

1) Guess the pattern introduced in the previous round,

2) Make new moves, following the guessed pattern, and

3) in making new moves, introduce a new pattern;

4) player may pass at any time.

* If the pattern follower makes an incorrect interpretation, the pattern-maker can simply say the word "No". The pattern-follower must take back the incorrect move and try again until the pattern-makers agrees.

* The game ends when one player decides to end.

8. SCORING

There is no scoring. For reasons of rotation, patterns can be described as sets of rules on selection and positioning of pieces.

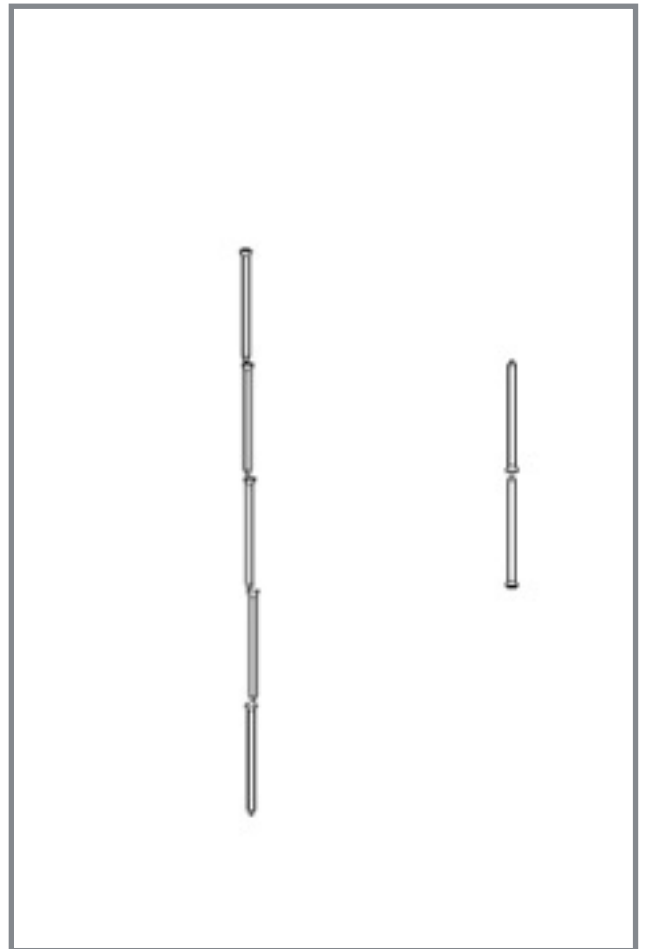
2. Example of Play

Players

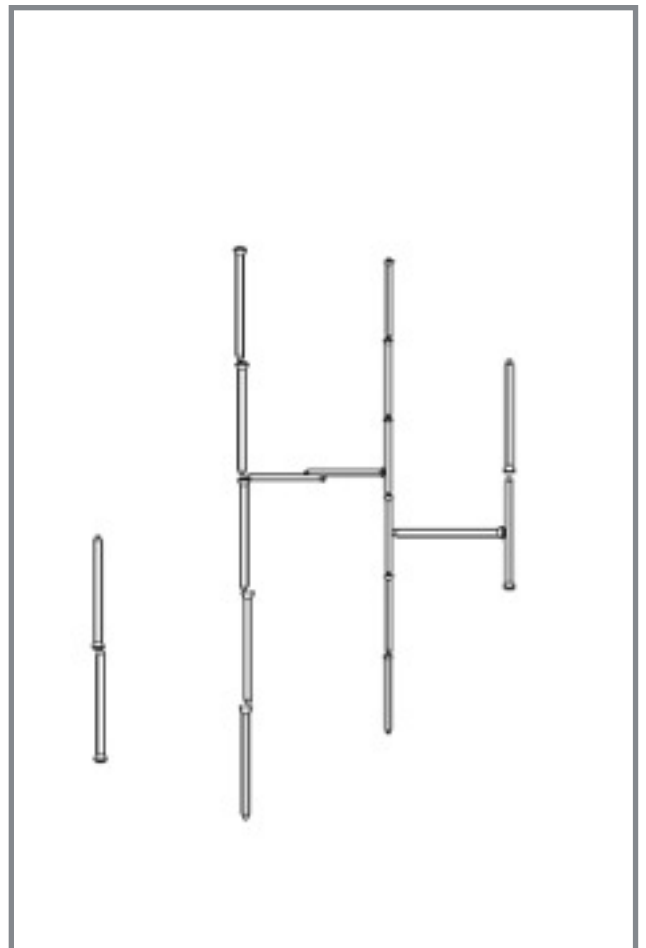
Two players A and B,
A and B agreed not to use more than 20
pieces altogether.

Round 1

A made a row of big nails connecting
head to tail, (conceived as rule-1), and
then made another row of nails parallel to
the first row (conceived as rule-2)



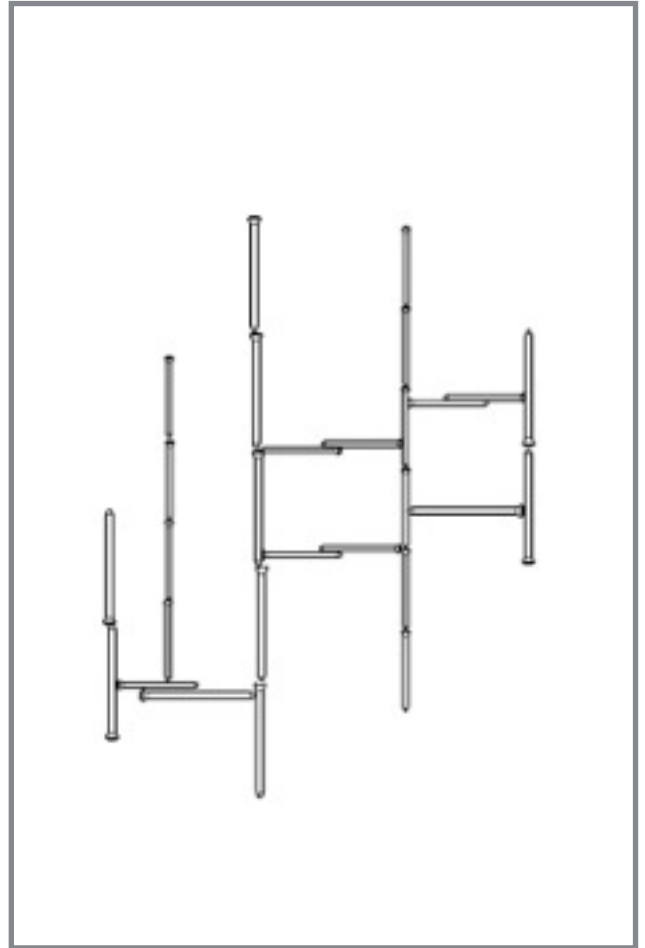
B Followed by adding another two rows,
using big nails and middle size nails,
parallel to the two previous nail rows.
Then, B introduced new relations, placing
pieces perpendicular to two adjacent rows
to make horizontal connections between
them. (conceived as rule-3)
Such a horizontal connection between two
rows was made either by a single nail, or
by two 'overlapping' nails to span the
distance longer than a single nail
(conceived as rule 4)



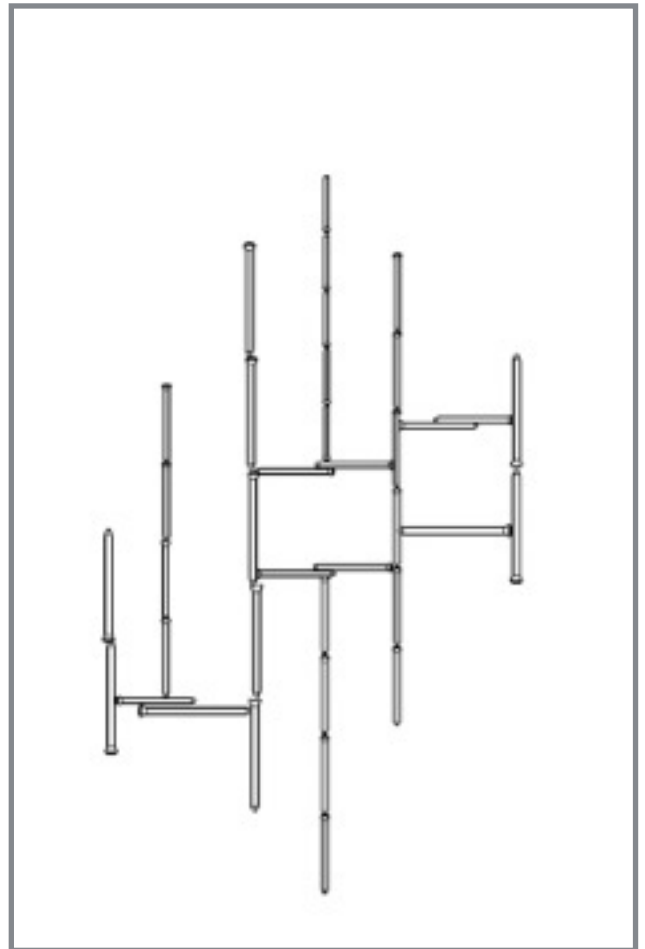
Round 2

A made more horizontal connections with nails.

Player A also added new rows of nails aavutting only to the overlapped portion of horizontal connections (conceived as Rule-5)

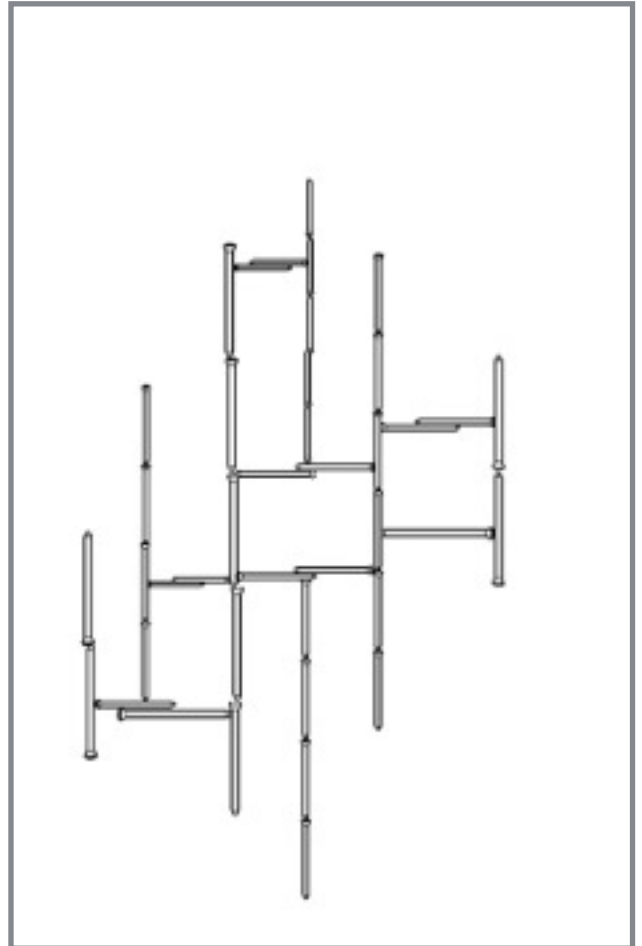


B followed by making another row.

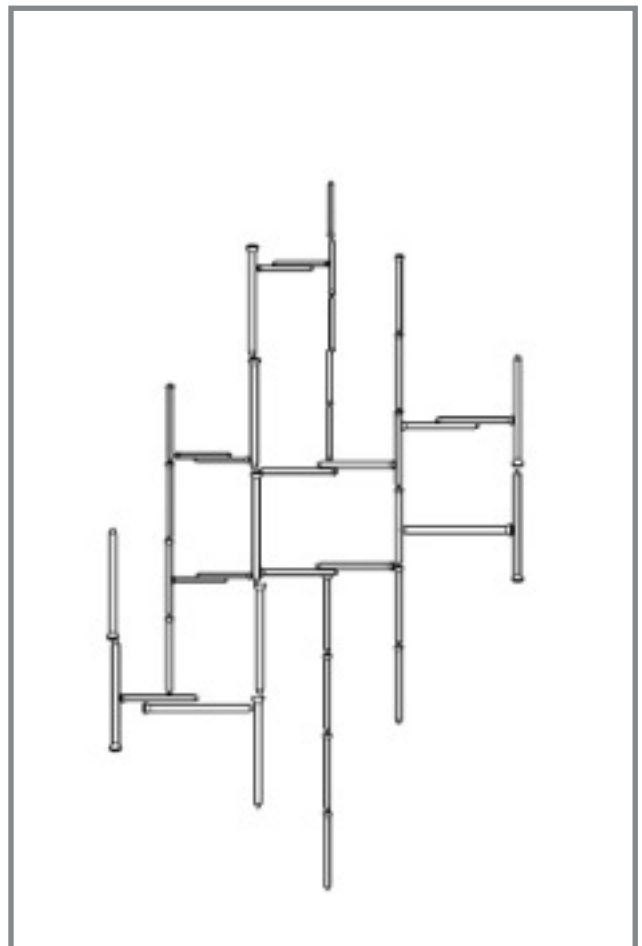


Round 3

A made two horizontal connections

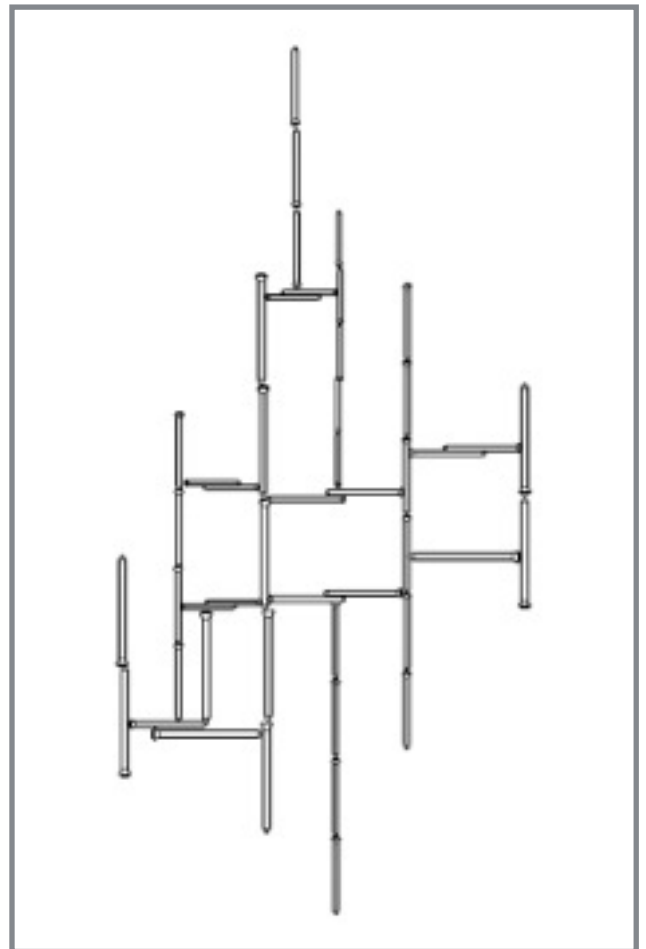


B also made a horizontal connection

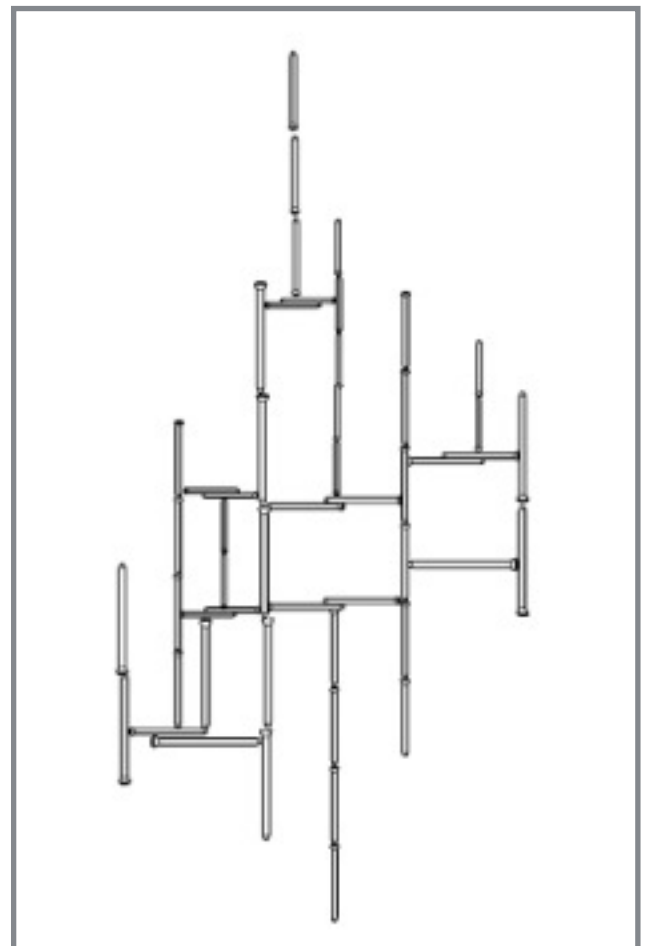


Round 4

A made vertical connections between horizontal pieces. (Unlike the horizontal connection between vertical rows a vertical connection must be a row of nails (as per pRule-1) that cannot be 'overlapped')

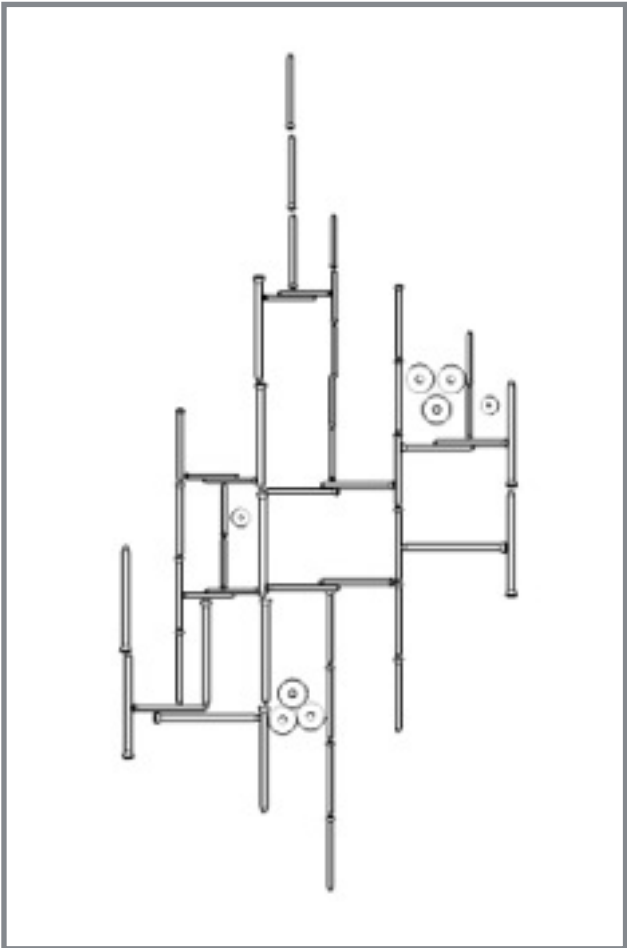


B added a few vertical rows.



Conclusion

Washers were placed to establish an 'end state'. Both players agree to stop.



END

3. Game Variants

The Constants

The basic structure of the game consists of three components.

- 1) There is a role of Pattern-maker and a role of Pattern-follower
- 2) All rule should e about selection of pieces and their formal relations.
- 3) Rules must be made 'in silence'.

The Variables

1. Site variation

A site with features is of particular interest to the pattern-makers for developing a hierarchy of rules. For instance, the site figures will be the highest-level elements, which cannot be moved, then a class of second-level elements related to the second level, and so on

The site can also use different kinds of grids. The grid serves as a means to relate pieces to the site, and relations among pieces can also be made more precise with respect to the grid.

2. Protocol variation

The thrust of the game is its protocol rules. Game variations therefore rely heavily on variations of protocols. One basic variation of the game lies in different patterns of assigning roles of players. Instead of playing both roles of pattern-maker and pattern-follower in each turn, one player can play exclusively as pattern-maker or as pattern-follower throughout the entire game. This single role variant is simpler than the double role one described above in terms of interaction between players. In the single-role variant the pattern-maker only exercises the skill of

making rules to control the development of the configuration as intended, and s/he has the power to determine the form to be made.

Without an individual program, the pattern-follower's sole responsibility, on the other hand, is to successfully guess the rules and follow them as understood.

In addition to patterns made by adding pieces to the configuration, new patterns can also be made by "taking out", or displacing existing pieces. Such patterns can be called "transformation patterns".

Transformation patterns must also be about selection of pieces (say, eliminate all red pegs connected to the yellow big slab.); or about spatial relations among pieces (say, if the red pee connects to the yellow big slab, then it must be urned at a 45 degree angle).

4. Comments and reflections

The game can be played meaningfully only if each player develops individual goals. The common program oof the game is to make forms. A form can be conceived in many different ways; a very specific configuration such as the furniture arrangement in one's living room; any configuration which has a certain geometrical property, such as a circular form, a linear form, a symmetrical form; any pattern as a result of some positioning constraints: element-A must always be adjacent to element-B; element-C must always be in the centre area; etc.

Forms can always be read in two ways; material and spatial. Therefore one can formulate two series of rules concerning a pattern: material rules about pieces and their relations, and spatial rules about the properties and organisations of the interstices between physical pieces. Sometimes the rule is so apparent that we can tell it immediately from observing recurrent patterns; sometimes more exploration is required to figure out the pattern. In general a pattern can be figured out in a systematic trial-and-error.

As a way of teaching the reading of patterns by way of this game, it is advisable to start with the game variation where one player plays only as pattern-maker and the other player only as pattern-follower. Then they can play a second time, exchanging roles. The purpose is to coach each player in both pattern-making and pattern-guessing skills separately.

As a pattern-maker, the player's major concerns are about how to effectively control the intended configuration by giving structure to it in the way of rules.

As a pattern-follower the player's central purpose is to learn how to make plausible guesses. Once the players begin to acquire these skills they can start game variations in which each party plays both roles, and each party interacts with the other in pursuing individual goals of form-making in a collective context.

The game variant with transformation patterns can be played in two stages: in the first stage players use only patterns that construct configurations, in the second stage they apply only transformation patterns. The game

can also be played in a single stage in which transformation patterns were introduced as soon as possible.

2. Reflections

The game has no collective program, only individual goals. Since all parties must jointly make only one configuration on a same site, and nobody can fully control the final result, players must adjust their initial programs in the course of play by taking other player's intentions into consideration. Very likely different players have conflicting intentions of form making. Players must cooperate and try to understand each other's intentions. Cooperation is more plausible than competition and players learn that unless they can understand and respect other players' intentions, and unless all players share certain rules as common ground, their efforts in pursuing individual goals will not be successful.

