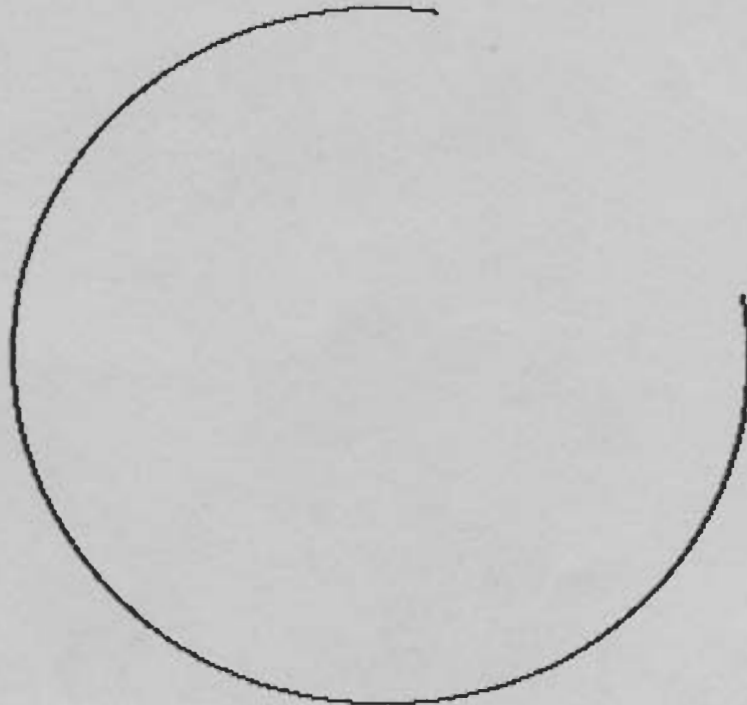


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CONCEPT
DESIGN
GAMES
BOOK TWO:
PLAYING



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0 CONCEPTS WE WORKED WITH

The games we present in this study are based on elements of theory about the designing of organizations of physical forms. We developed these elements of theory in our work on design methods in recent years. We believe them to be useful and of general interest to all physical design disciplines. This chapter explains those theoretical aspects.

In the following exposition we will use games in two ways. We will refer to games presented in the manuals as we discuss the concepts they rest on. But we will also use, by way of illustration, small demonstration games that are explained in the text. These 'demo-games' can easily be laid out by the reader using only a few pieces. In addition we will sometimes show a configuration of game pieces as an illustration without making a game. These configurations also can easily be copied by the reader with the help a few pieces. The 'Little Game', discussed already in the previous chapter, serves as a demo-game for the concept of control, but is also recommended generally as an introductory game for those who want to play before choosing one of the eight more sophisticated games.

1 Control

The concept central to all making, using, and designing of artifacts is that of control. To be a maker, user, or designer one must have control over the artifact or some of its parts. The control of the designer is not necessarily a matter of physically moving stones, sticks, and bolts--although such actions may well be part of designing. Rather, control resides in the ability to determine what things go where and in what way. In our games control is defined as the ability to manipulate pieces; to select pieces and bring them into the site, to determine their location, to displace and combine pieces in the site, and to remove pieces from the site. All players exercise control in one way or another.

It is also by control over pieces that players interact with one another. In interacting they may also exercise control over one another - in the sense that one player may force another to move in a certain way, may cut off another player's alternatives, etc. It is in the nature of games that one player's control over the acts of another player ultimately resides in the ability to control pieces. In the same way interactions among designers in real-life projects are based on their control over parts

of the artifact to be designed. Later in this chapter we will discuss in more detail the question of control over space: how players exercise territorial control on the board. As we shall see, this form of control is also defined in terms of control over pieces.

All control is subject to constraints. Different kinds of constraints define different kinds of control. To introduce the various kinds of constraints a party may meet when exercising control in a game let us consider the Little Game (See Manual 1).

We find here that one player has control over all the white pieces but no control over any red pieces. Both Red and White have access to the yellow and blue pieces, and because they share the points these pieces yield when brought into play, Red and White also share an interest in their disposition. In part of the site (A) White has free access and can indeed deny access to other players. In another part of the site (B) Red is in control and White must have Red's permission to enter. Finally, in a third part of the site both players have equal access.

We see how, both relative to pieces and to the site, control for a player can be exclusive, shared, or denied altogether. Such conditions are common to all forms of physical design. Some parts we are fully responsible for, other parts we cannot touch, and yet other parts we must share with other designers. In the same way, we have a space in which to create our configuration; some spaces in the field we must share with other players; other spaces we cannot access at all.

The Little Game also has rules about the relation of pieces of different colors. White pieces can be placed next to blue and yellow pieces already in play, but blue and yellow pieces may not be placed next to white pieces already in the site. Properties of the Technical Universe establish priority in the placement of pieces. In real life we meet this kind of constraints as well. Certain configurations--frameworks, infrastructures--must be in place before we can connect to them.

Once these basic types of control in relation to Site and Technical Universe have been implemented we can see possible variations and additions in the distribution of control. For instance, a third party may control the common space in the site. This party would not control any pieces directly, but would have a say over the disposition of all pieces entering the shared space. This third party must agree about a piece brought into the common space and about the place this piece will occupy. Both Red and White would have to consult with this 'coordinator'. Another variant might be for yet another party to control yellow and blue pieces. This party, then, controlling only pieces but not any part of the site, would always be dependent on others, having to negotiate for the placement of its pieces.

The various kinds of control encountered in the Little Game we will find again in the other games exploring different concepts. Control is part of all games; making a game based on a concept is to express the concept in terms of control. When surveying the ways of exercising control we must keep in mind the distinction between Roles and players. Once we have defined Roles we can still distribute players over them. A single Role can be played by a team of players. A single player can play more than one Role. Thus we can transform the simple Little Game into a much more complicated game with four instead of two Roles and with Roles played by teams and individual players participating in various Roles. In fact, with some effort we can make issues of coordination and protocol dominate all else !

2 Interaction

We can learn from what designers do: from the pieces they actually move, from the words they speak to suggest moves or to explain moves made, from the sketches, diagrams, or other representations they produce when words are inadequate. Such acts are almost always forms of interaction between designers. Designing is a continuous attempt to describe the thing to be designed. Many of these descriptions are function and domain specific and as such fall outside the scope of this investigation. But physical design concerns the arrangement of things in space regardless of the artifact's purpose. To a large extent the physical designer's skill rests on the ability to convey projected spatial arrangements through descriptions.

We have developed two games about interaction. These are the Reference Game and the Silent Game, and they are complementary. The Reference Game has a 'Talker' who instructs a 'Doer' as to what to do. The Talker may not move any pieces and the Doer may not speak, or draw, or sketch, but only move pieces. The Talker must give a message containing instructions to the Doer who interprets them in a configuration on the board.

The Reference Game poses the question of formulating intentions. How do we convey them? To what extent do words suffice? When must we revert to other forms of representation? How much is implicitly understood between the players? The game also poses the question of following instructions. How does the Doer understand and translate this message into a configuration? The Talker, in turn, may agree or disagree with this configuration, and so on..... In a way the Reference Game puts the design situation in a nutshell and, depending on how we vary the rules around the two Roles, allows exploration of the limits to, and conditions for reference to the arrangement at hand.

The Silent Game, in contrast, forbids any form of reference. The players are not allowed to talk. The first player lays out a pattern for the second player to follow. Then the second player adds another pattern to the configuration on the board for the first player to follow. An elaborate configuration emerges on the board representing a combination of patterns understood by both players (see Figure 1.1). No explanation is given, nor are agreements formulated. Only the configuration is there. Action is all, and only medium available for communication is the set of pieces on the board. Playing the Silent Game, we exercise our ability to follow patterns and to understand the intentions they convey. In the Silent Game we explore the power of implicitness.

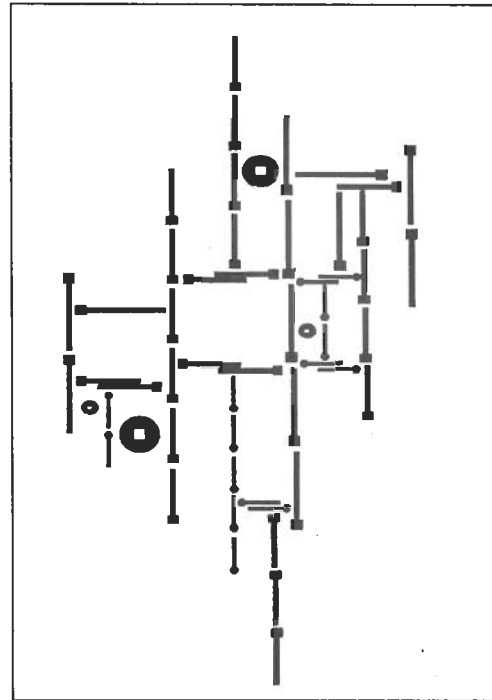


Figure 1.1

The making of patterns in physical configurations is as powerful a way to communicate as the word or other more formal ways of representation. (Christopher Alexander's work on pattern languages rests on this premise.) The implications and meanings of patterns need not be more ambiguous than spoken language. Knowledge of patterns, however cannot be put in words, conveyed in diagrams or drawings, or otherwise be expressed without loss of content. Pattern knowledge is best conveyed by demonstration and imitation. It follows that games are good vehicles for studying the uses of patterns.

Of all the games we explored, the Silent Game is most appropriate for creating a complex system known to all players but not represented in any other way. We call such a system 'vernacular' as it is not codified but nevertheless familiar to all involved. To play the Silent Game there should not be a fully developed Technical Universe. There should, however, be a wide array of possible pieces for the players to choose from. The players in the Silent Game produce their own distribution rules. If a well defined Technical Universe is given at the outset, the players will nevertheless create within it an even more constrained

system.

In the Reference Game, on the other hand, a well defined Technical Universe, familiar to both players, provides a shared context within which to place the Talker's intentions. A well-defined Technical Universe is a distinct advantage to both players in this game. Without such a shared Universe the Talker must either be prepared to leave many decisions to the Doer, giving only general directions, or must laboriously spell out detailed systemic principles to be followed. The Reference Game soon reveals how important it is for the two players to have some shared background, not only in the way of a Technical Universe but also in a common vocabulary allowing the expression of values and preferences. It is too much effort for the Talker to spell out every piece and every relation in order to describe the desired artifact.

Although the Silent Game and the Reference Game represent very different modes of interaction, both show us how important are shared understandings in designing. Together they illustrate the extent to which interaction among designers is indeed rooted both in conventions of seeing rules and goals in the deployment of pieces (in patterns), and in conventions of describing such deployments.

3 Transformation

We invented a Transformation Game that demands the gradual alteration of a given configuration without adding or removing any pieces. The game is based on carefully defined displacement moves and the Technical Universe is all important. The game demands that the players project a sequence of moves to transform an initial configuration on the board into a specified end state. Individual players have their own domains of control and must therefore coordinate their actions to reach the common Program.

Any transformation game is a means to exercise skills in manipulating complex spatial arrangements. The division of responsibility increases the need for players to project alternative strategies, compare them and reach agreements, and then to coordinate their actions to implement their agreements about strategy.

Our particular Transformation Game is based on connective relations only. That is, the rules in our game reflect an interest in the uses of a few basic displacement moves sufficient to transform any configuration of interconnected pieces into another. The game was developed to illustrate this set of moves and to find out what players could do with them. Obviously, many other technical universes can be invented leading to other transformation games.

3 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 needs 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 selections of pieces and spatial relations among the pieces and are expressed only by placing pieces in the site. A player is assumed to understand the patterns if s/he can make moves to continue the configuration without objections from the other player(s). Patterns remain implicit throughout the game, 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 technical rules concerning relations among pieces, and/or relations to 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

This game has two roles: pattern-maker, and pattern-follower. Except for the first and the last turns, each player actually plays both roles in each turn: first guessing the patterns the other players had in mind when moving earlier and then following that pattern, then making a new pattern that the other players must, in turn, guess and 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 goals 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 unlimitedly.)
- 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 used. (Pieces are distinguished by size, color, and shape).
 - 2) Spatial relations among the pieces.
 - 3) Spatial relations between pieces and the site.
- Patterns are expressed only through placing pieces; no explicit description of any 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) a 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-maker agrees.
- The game ends when one player decides to end.

8. Scoring

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

2. Example of Play

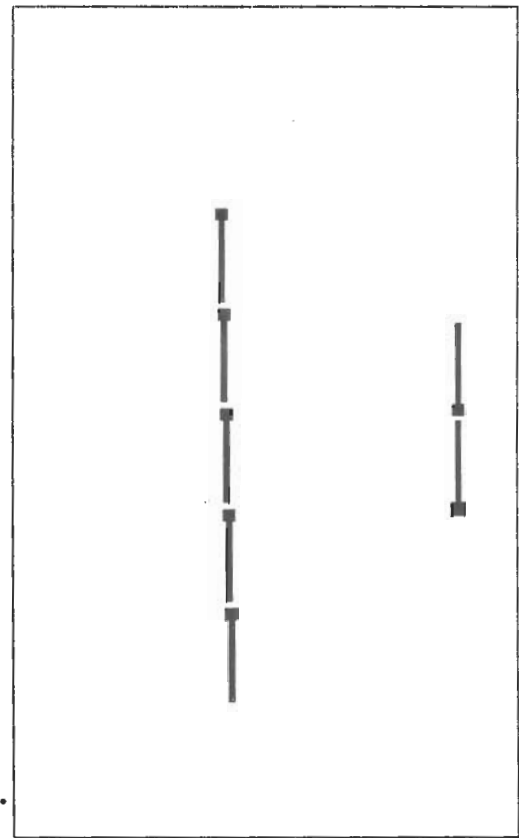
Players

Two players: A and B.

Players A and B agreed not to use more than twenty 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).

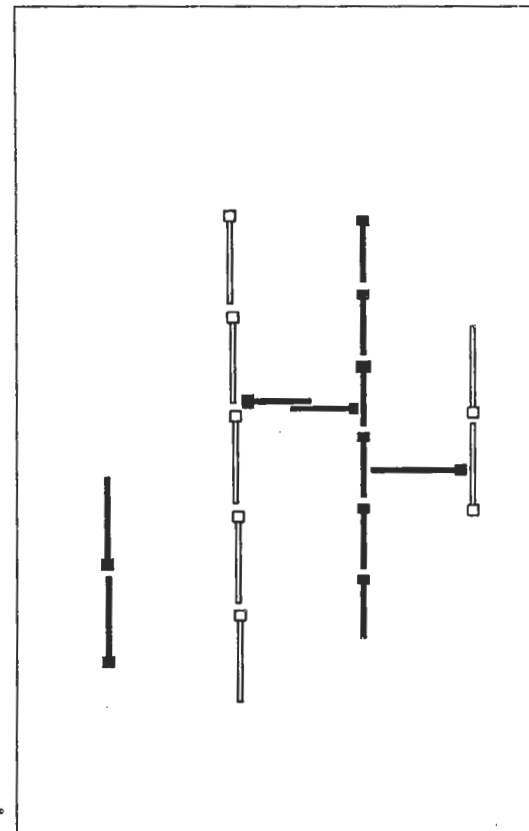


1A.

B followed by adding another two rows, using big nails and middle size nails, parallel to the two existing 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 a distance longer than a single nail (conceived as Rule-4).

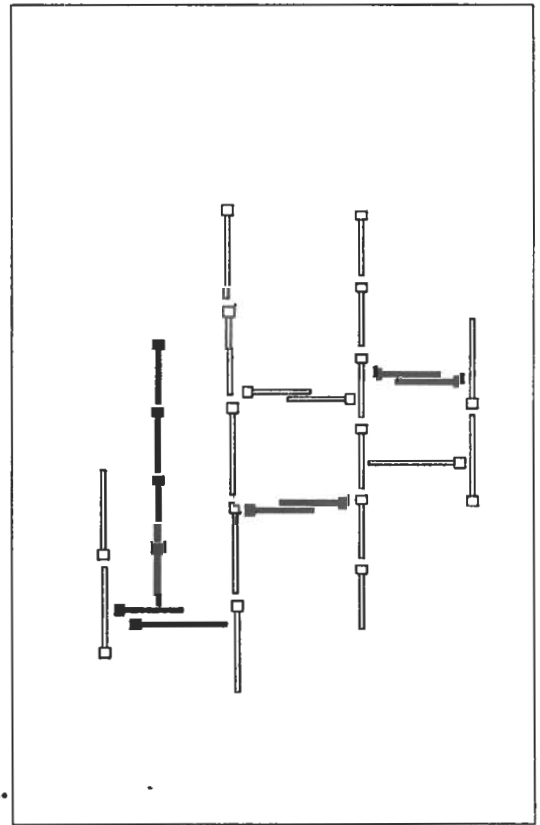


1B.

Round 2

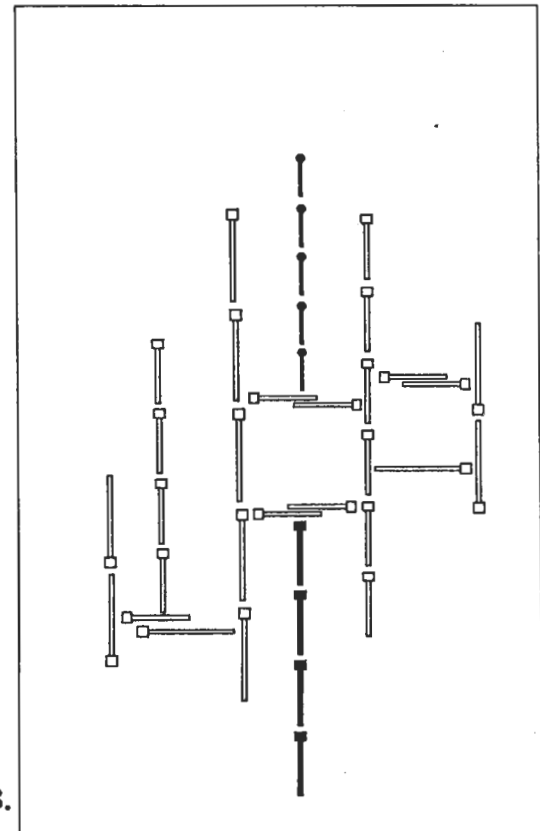
A made more horizontal connections with nails.

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



2A.

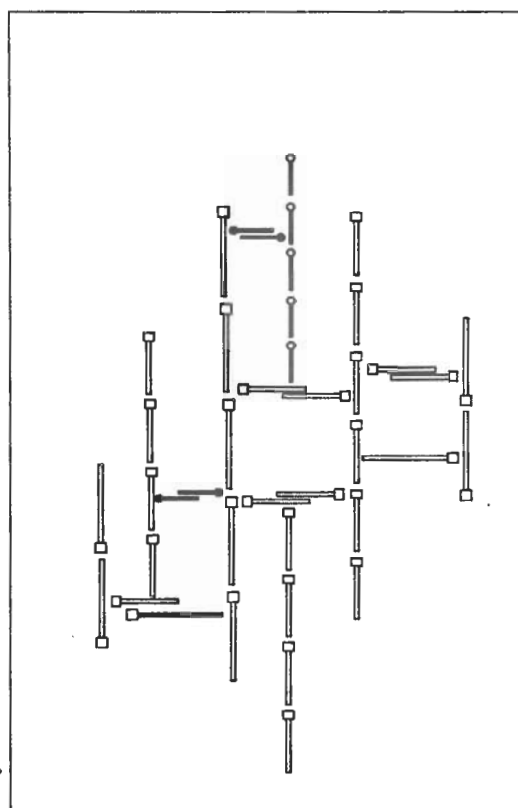
B followed by making another row.



2B.

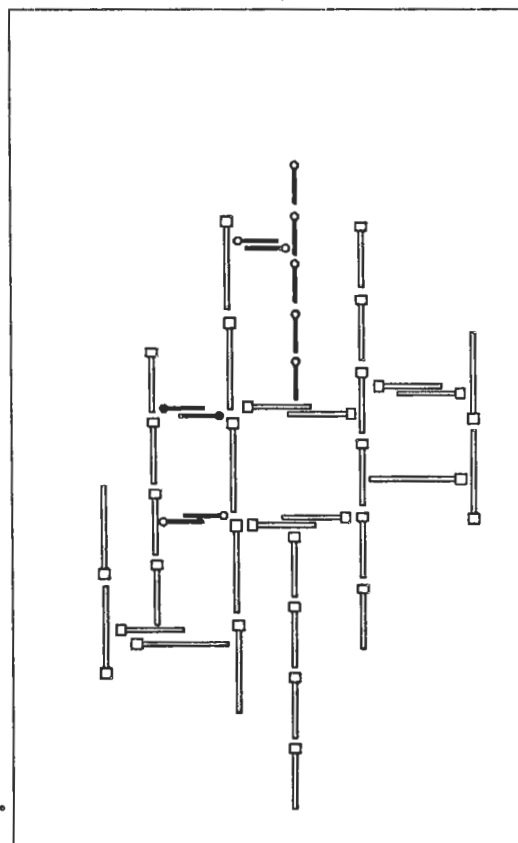
Round 3

A made two horizontal connections.



3A.

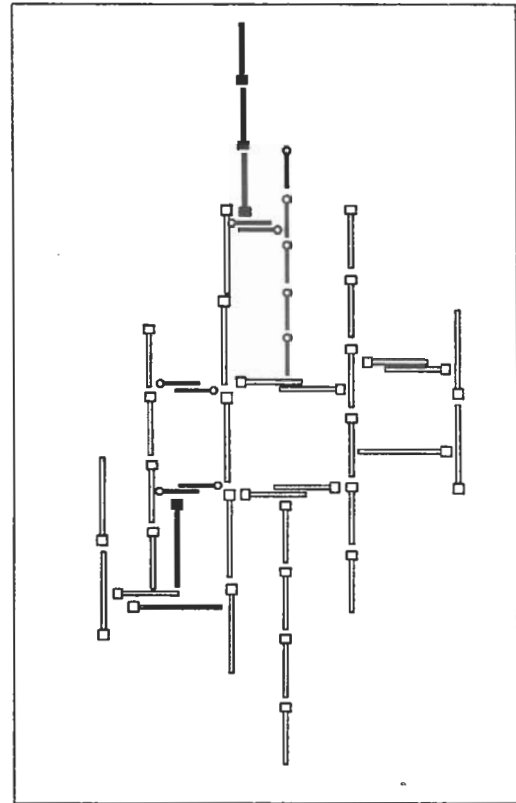
B also made one horizontal connection.



3B.

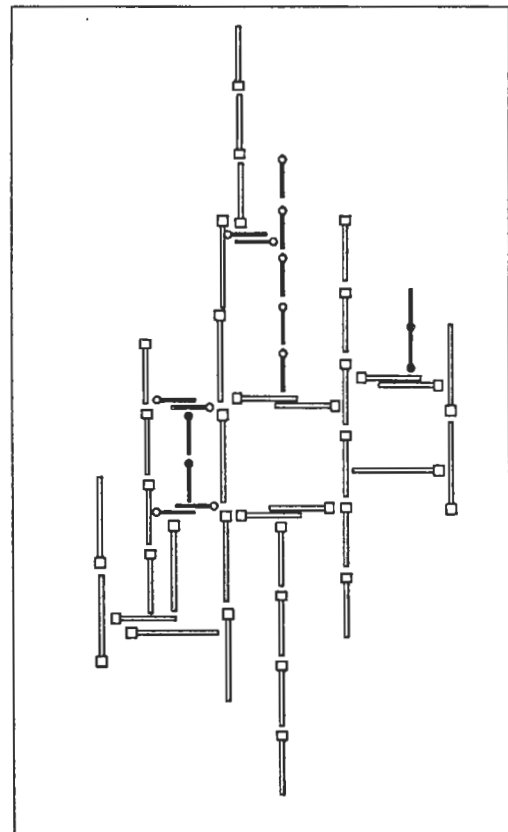
Round 4

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 Rule-1) that cannot be 'overlapped'.)



4A.

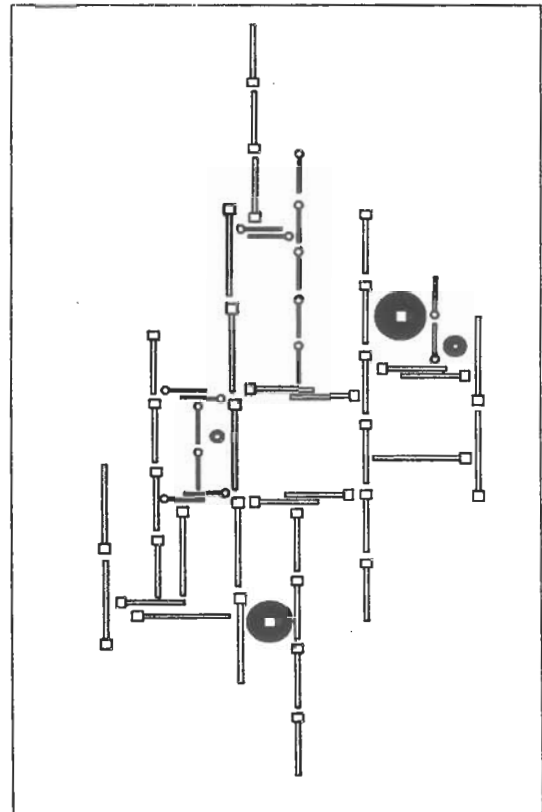
B added a few vertical rows.



4B.

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 rules should be 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 features will be the highest-level elements, which cannot be moved, then a class of second-level elements can be selected and related to the site elements, and then third 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 precisely 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 to players. Instead of playing both roles of pattern-maker and pattern-follower in each turn, one player can play exclusively as a pattern-maker or as a pattern-follower throughout the whole game. This single-role variation is simpler than the double-role variation described above in terms of interactions involved between players. In the single-role variation, the pattern-maker only exercises the skill of making rules to control the development of 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 peg connects to the yellow big slab, then it must be turned 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 of this 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 center area; etc.

Forms can always be read in two ways: material and spatial, Therefore one can formulate two sets of rules concerning a pattern: material rules about pieces and their relations, and spatial rules about the properties and organizations of the interstices between physical pieces. Sometime 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 a structure to it in the form of rules. As a pattern-follower the player's central task is to learn how to make plausible guesses. Once the players begin to acquire these skills they can start a game variation in which each party play both roles, and each party interacts with others 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 are introduced as soon as possible.

2. Reflections

The game has no collective program, it has 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 original individual programs in the course of play by taking other players' 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.

3 REFERENCE GAME

Summary

The Reference game is about communication in design. It addresses two general means of communication involved in design: verbal expression and visual interpretation. There are two roles one can choose to play: the 'Talker' gives instructions for a design in words; the 'Doer' interprets the Talker's message by producing a design with pieces. Clearly, both players design, but in different ways and by different means. No program is given in the game rules; it is the Talker's responsibility to formulate a program as the major part of the design task. The Doer's task is to work out a physical arrangement that satisfies the Talker's program. Most game rules are left open to players. The most important rules in this game are protocol rules, which must be settled among players before the game starts. When making protocol rules, players should understand the spirit of the game to explore the limits and the strengths of various forms of design communication.

1. Game Rules

1. Technical Universe

Selection: The game can be played with any and all pieces from the technical universe.

Distribution: No technical rules are defined about relations among pieces unless otherwise specified by the protocol rules.

2. Site

The site is a flat board with varying sizes according to configurations to be made. Some pieces can be used before the game starts as the given site features.

3. Program

The two players must jointly create a configuration on the board.

4. Roles

The game has two roles: the 'Talker' and the 'Doer'.

- The Talker gives instructions about forms to be made. The Talker uses only words.
- The Doer moves pieces in the site to make configurations according to the Talker's instructions.

5. Moves

The Talker can make moves only by talking.

The Doer can move as follows:

- place a piece on the site.
- take a piece out of the site.
- relocate a piece.

6. Goals

The goal for the Talker is to achieve the configuration s/he intends to have on the board.

The goal for the Doer is to give 'correct' interpretations that satisfy the Talker's intentions within the given time limit.

Comment: the Doer may also have her/his own formal intentions regarding the form, but these are secondary to the task of interpreting the Talker's intentions.

7. Protocol

Before the game starts, players should determine who plays which role, and the player chosen to be Talker should preconceive an image of form to be made.

Comment: the image need not be formulated once and for all; it may evolve as the game proceeds. For instance, the Talker may give an instruction by referring to the Doer's previous moves: 'repeat the composition you did there'.

Players should decide how the game shall stop. There are three ways to stop the game:

- set a time limit. (e.g. 30 minutes.)
- set a limited number of instructions. (e.g. 15 instructions.)
- the Talker decides to stop whenever s/he feels the program is accomplished.

Players alternate turns. The Talker always takes the first turn, the Doer always takes the last turn.

At each turn the Talker can only give no more than **three** instructions.

Comment: What constitutes an instruction is subject to general agreement, but in general, one instruction is a verifiable statement such as: 'make a symmetrical layout'; 'make one open form connecting to that enclosure.'

At the request of the Doer, the Talker may explain the instruction further, but not to demonstrate by an example. The degree to which players have a dialogue is subject to agreement among the players. In the extreme case the Doer should not speak at all.

The Doer's turn ends with the completion of the Talker's instructions, and the Doer shall inform the Talker when this has been done.

The Talker can give general rules about the selection and distribution of pieces and thus create a technical universe. The Talker can also formulate constraints having to do with issues like:

- The qualities of the form, such as its shape, size, and material. (e.g. a 'small triangular wood enclosure', an 'irregular linear form'. etc.)
- The quantities of the form. (e.g. 3 solid surfaces, 4 closures).
- Properties of an arrangement, such as, the composition should yield certain formal characters, or functional capacities. (e.g. symmetrical pattern, one-directional arrangement, all forms should have access from the outside, every open space should accommodate at least two small closures.)

The Talker can only 'talk'. Therefore, the Talker **cannot touch** any piece.

The Talker can undo a previous instruction. Such a release rates one instruction. Therefore the Talker can release no more than three previous instructions in one turn.

Comment: like it or not, the Talker cannot reject the Doer's solution as long as it meets all requirements that have been stated. Therefore, the Talker can not make a comment like: 'no, this is not what I want', but can only give instructions to tell the Doer what to do. Some things the Talker should not say:

- *dictate specific pieces and their exact locations on the site.*
- *give contradictory instructions.*
- *offer his/her own solutions and force the Doer to follow.*
- *reject the Doer's solution.*

Instructions are **cumulative** in a play. The Doer should ensure that the arrangement made to satisfy current instructions also continues to satisfy all other requirements given in previous instructions. That is, design constraints increase as the game proceeds.

8. Scoring

No scoring system is designed for this game because successful communication cannot be explicitly measured, but only implicitly understood by players.

The Talker, however, can explain the original intention after the game ends. If possible the Talker should also make a rough sketch of his/her intention at the very beginning and put it aside. This sketch can be compared with the game result after the game is over.

2. Example of Play

1. Players (total 2)

The Talker: one player.

The Doer: one player.

2. Set up the game

Pieces: all pieces are available.

Site: a flat board.

Stopping Rule: the Talker decides when the game is finished.

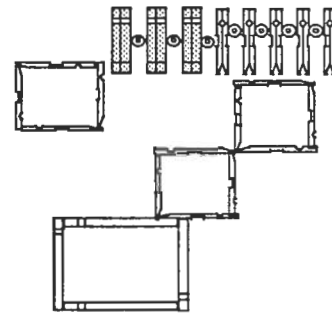
3. Procedures

The following describes an instance of play of the Reference Game. The game was completed in five turns. Each turn shows the Talker's instruction and the Doer's response.

Round 1

The Talker: make four enclosures, two surfaces, and they should be connected.

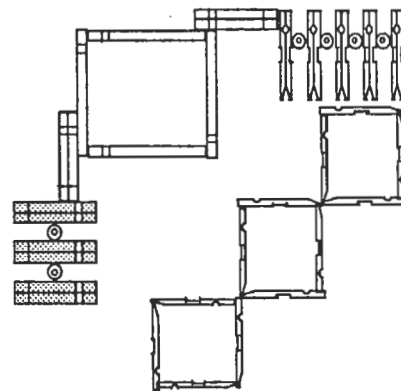
The Doer:



Round 2

The Talker: Both surfaces should connect to the large enclosure.

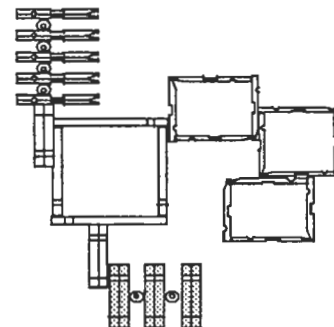
The Doer:



Round 3

The Talker: all enclosures should be connected.

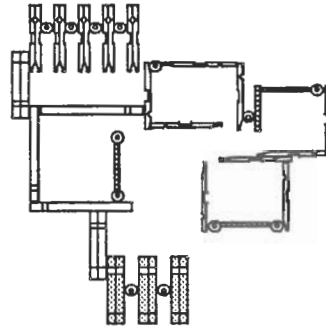
The Doer:



Round 4

The Talker: each closure should provide an opening at the edge facing the central space (the space defined by the grouping of 4 enclosures).

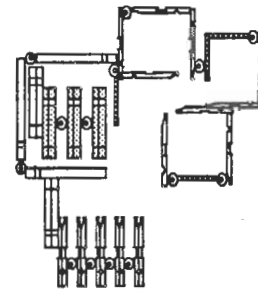
The Doer:



Round 5

The Talker: The two surfaces should also relate to the central space with direct access.

The Doer:



Comments:

- Note how in this example the Doer established a technical universe of pegs and washers.
- The rule that instructions are cumulative made the Doer, in the fifth round, place the small surface within the large enclosure.

3. Game Variants

1. The Constants

We have a reference game if the following two conditions are met:

- 1) There are two roles: a Talker and a Doer.
- 2) The game involves one party interpreting another party's intentions.

Once a role is chosen, its design responsibilities are defined as well. In many of the games role and player are independent, one player can play two or more roles. In the Reference game this is impossible, although one role can be played by many players.

2. The Variables

2.1 Technical Universe Variation

Rather than allow all selections and distributions of elements evolve within the play, the game might restrict the selection and/or the deployment of pieces, introducing a technical universe players must adhere to. For example, a distribution rule might require that pegs only connect to nails with an intervening washer, or that no more than five pegs may be placed in a row. A selection rule might state that only pegs and washers may be used.

2.2 Site Variation

The site may have some elements that cannot be touched as the given constraints, or the site may have heterogenous subdivisions over the field, in the way of zones, margins. The Talker can use these site features as references to give more precise instructions. The Doer can also incorporate these features as a part of his/her interpretations.

2.3 Role Variation

Both the Talker's role and the Doer's can be played by more than one actor. It is not necessary to have one Talker corresponding to one Doer. We might explore how a group of Talkers can integrate diverse opinions and to see how Doers work effectively as a team. One Talker may work with several Doers in parallel: s/he can give one instruction to different Doers to see different interpretations, and learn how precise or ambiguous are statements. Or the Talker can give each Doer a same set of instructions in different orders to explore the consequences. Finally, the Doer may be a team of players who must agree, among themselves, about the interpretation of the information given by the Talker.

2.4 Protocol Variation

The relationship between Talker and Doer is purely technical in the sense that one gives out tasks, the other seeks ways to accomplish them, and no other relationship exists between them. How to play the role 'correctly' is largely described by the protocol rules of the game.

The Talker and the Doer need not take turns in strict regularity. The Talker might interfere randomly by saying 'stop' in the course of play whenever s/he feels necessary, and then issue further instructions. This would allow the Talker to change her/his mind, or to save time and energy when the Doer seems to misinterpret the instructions. The number of instructions issued at each turn can also be varied so that the Talker can give many instructions at one time. The Doer can also have more freedom to decide which requirement should be satisfied first.

Rules about terminology between the Talker and the Doer may also be formulated so that both sides can comment on each other's performance. For instance, 'connection' can be a technical word in one game variant that admits only few correct interpretations; while in another game variant it can mean almost infinite arrangements. A game with strict terminology rules differs significantly in ways of communication from the game without such rules.

It is also interesting to have a game variant in which the Talker can use only a limited set of words to convey spatial relations. These words can be given either as well-defined technical meaning; or be left as in ordinary language.

2.5 Medium Variation

Players may agree, as part of the protocol, to use sketches or diagrams as means for the Talker to instruct the Doer. These may go with the use of words or may even completely replace words. As another alternative, players may use only written instructions and no speech at all.

4. Comments and Reflections

The game offers a context for experimentation about the way we communicate about form composition. The way game players will specify the protocol depends on what they want to explore. When players share much in ways of considering form composition, they can afford an open technical universe. Where this is not the case it may be better to impose a technical universe of a few pieces with rules of deployment. As the game is played a first time, players will soon become aware of different meanings they attach to a word. A subsequent game may be set up to explore the uses of that term more fully.

In the same way, styles of working soon become apparent. The Talker must avoid two extremes: if the instruction is too general he may lose control. If the instruction is too specific the Doer will have no room for interpretation and be reduced to mechanical work. The Doer, in turn, must use the freedom given with wisdom. If she follows her own agenda without trying to understand the Talker's intentions, but only giving a legalistic interpretation, she may force the Talker into ever narrower instructions.

The game should be followed by a discussion in which players analyze the way intentions and interpretations were understood. Observers may join this discussion and it may lead to another game with a different protocol or different technical universe.