PUZZLE DESIGN

Type : Master's Thesis

INTRODUCTION

Great puzzle design is about an unspoken contract between the designer and the player – with the assumption that the player is given all the information they need to solve it, and it's just the matter of pasing it out.

A puzzle is a type game, this means that designing implies some issues that need to be addressed to minimize the inherent problems that puzzles have and maximize their benefits.

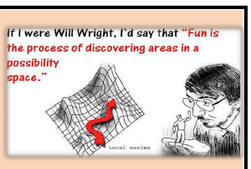
Imaginative and creative play is a more natural way for children to learn about the world and does involve the whole body. Children manipulate and touch various play materials. They express themselves through play both verbally and non-verbally.

WHAT MAKES PUZZLES FUN ?

Has to match the game theme/genre

Help the whole game state move forward

Done poorly, puzzles can reduce or eliminate the fun in the rest of the game just like a traffic jam can ruin a decent drive.



PLAYTESTING

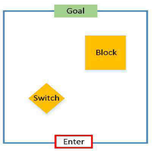
Finally, a note on testing. Just because someone can get through a puzzle does not mean it's a successful one. The joy of a puzzle is in solving a problem, if the problem is only understood in retrospect the puzzle is not successful. Time and time again i have seen confusing game design make it into a final product simply because the player is, after some time, able to solve the puzzle by mistake.

There are thankfully many solutions, asking the player to explain what they did after they've finished the puzzle and why they did it can be incredibly valuable. Also having them do this while watching a replay of themselves will often prompt their memory.

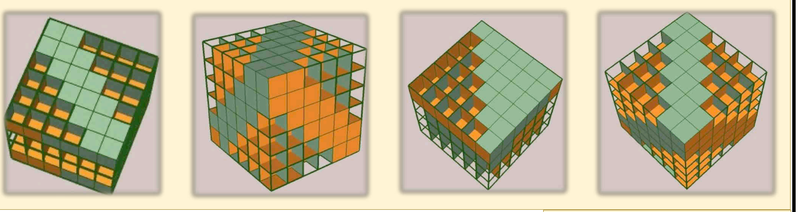
Another good technique is to sit with a player and ask them to think aloud while they attempt the puzzle.

PUZZLE TYPES

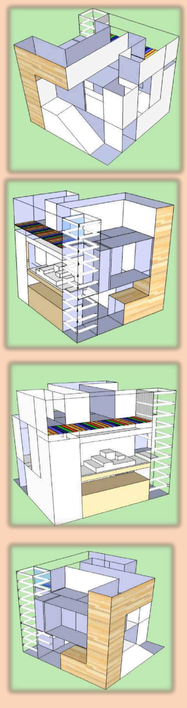
- Riddles – questions that have one right answer but it isn't obvious, usually involve a play on words
- Lateral thinking puzzles – trick questions
- Spatial reasoning – manipulation of objects
- Pattern recognition – look for and identify a pattern, code breaking
- Logic – take a set of given information and derive additional information
- Exploration – mapping, locating
- Item use – figure out which items to use and in what order

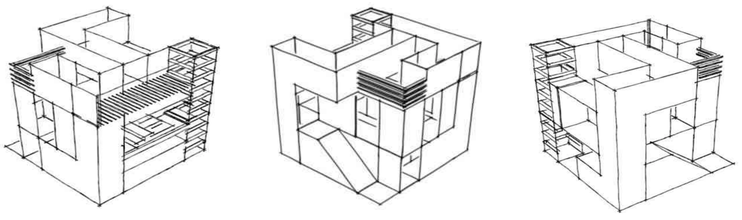


EVOLUTION OF FORM

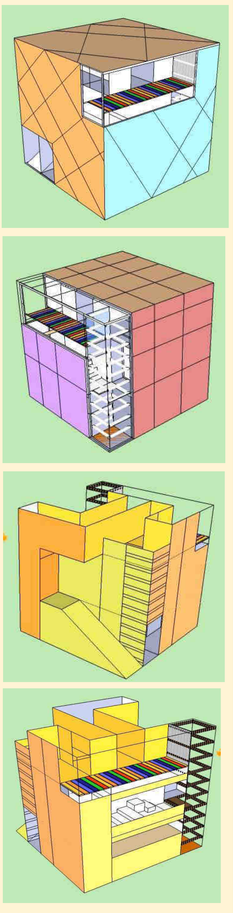


CONCEPTUAL FORM FROM FOUR SIDES





WORKING VIEWS OF ELEVATIONS

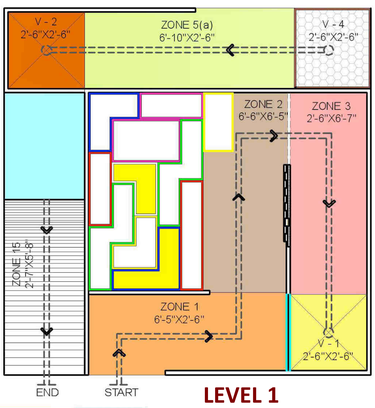


Zoning of puzzle :

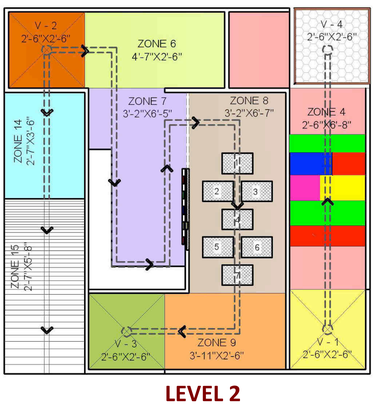
This complete puzzle is divided into different zones and 4 vertical tunnels to get ease in understanding change of space, game or activity while playing.

Journey of puzzle :

A person has to enter into the puzzle from one corner and then moving forward with the help of clues and directions solving all the designed zones and tunnels and after solving everything coming to exit.

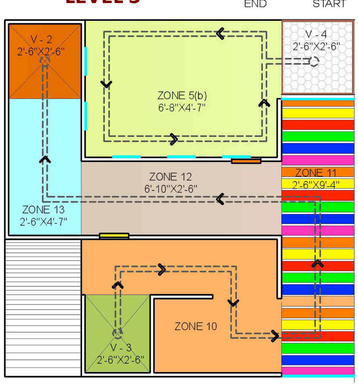


LEVEL 1



LEVEL 2

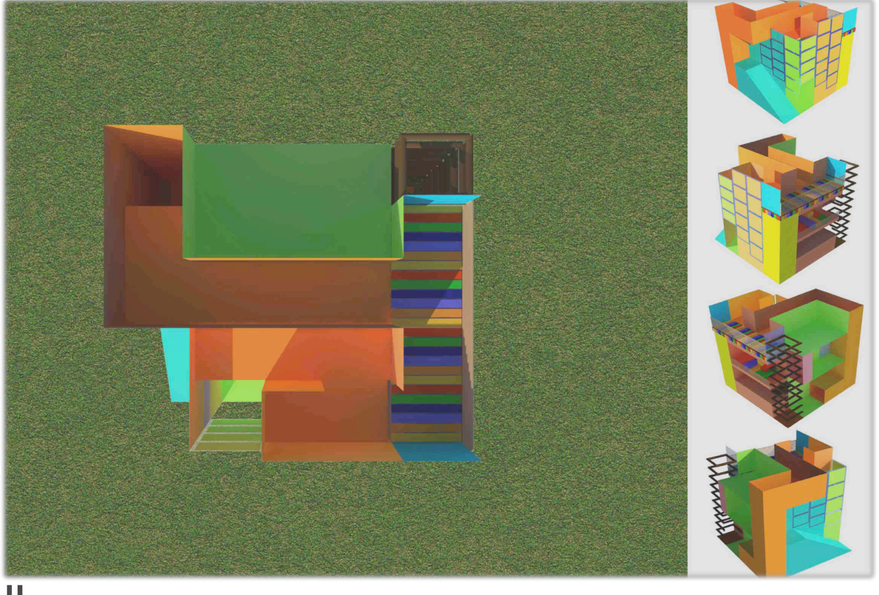
LEVEL 3



Basic Puzzle Characteristics :

Mechanic → Dynamic → Theme

- State of the puzzle
- Mechanics for changing the state
- There is also usually a theme
- Goal state (victory condition) Example: bioshock – hacking locked doors



FOUR-STEP PUZZLE DESIGN

STEP ONE :

The player understands the objective clearly.

STEP TWO :

The player discovers the pieces of the puzzle needed to solve it.

STEP THREE :

The player notices the association between the components and works out a solution in their head.

STEP FOUR :

The player implements the solution and solves the puzzle.

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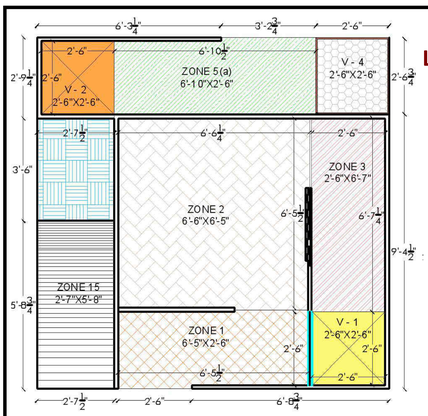
ideas

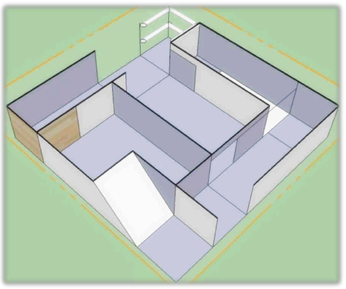
ALUMNI ASSOCIATION

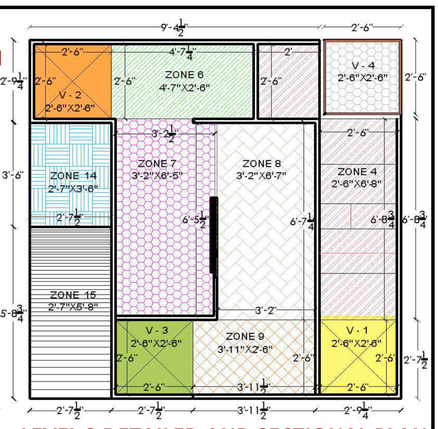
institute of design education and architectural studies

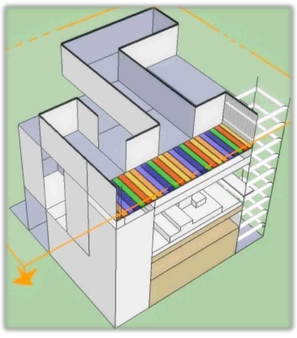
EXHIBITION OF ALUMNI WORK 2019

LEVEL 1 DETAILED AND SECTIONAL PLAN

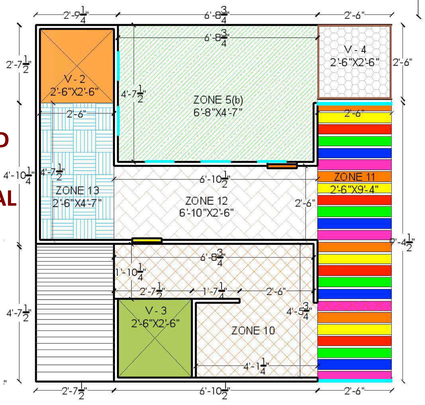




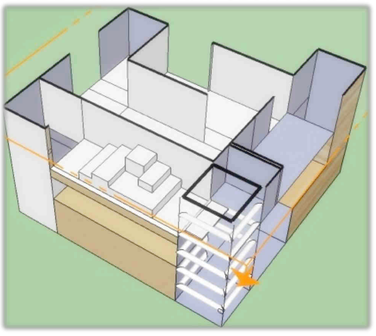




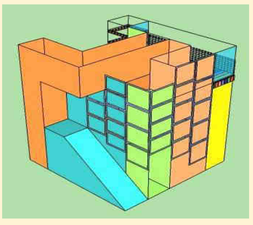
LEVEL 3 DETAILED AND SECTIONAL PLAN

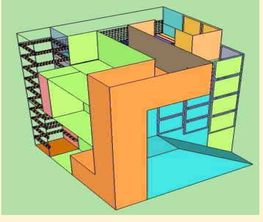


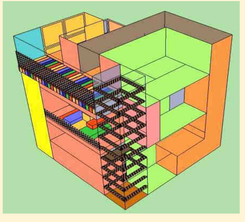
LEVEL 2 DETAILED AND SECTIONAL PLAN

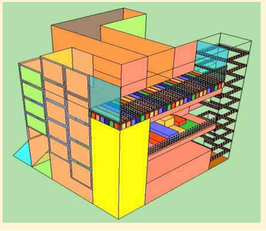


FINAL VIEWS







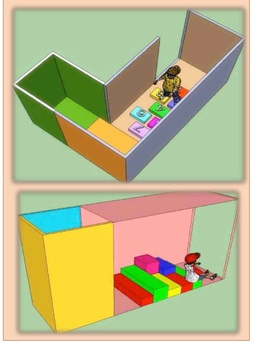


ERGONOMICALLY DESIGNED

- EASIER TO USE
- MORE EFFICIENT
- SAFER
- MORE COMFORTABLE

DETAILE OF ZONES OF ALL THE THREE LEVELS

LEVEL 2



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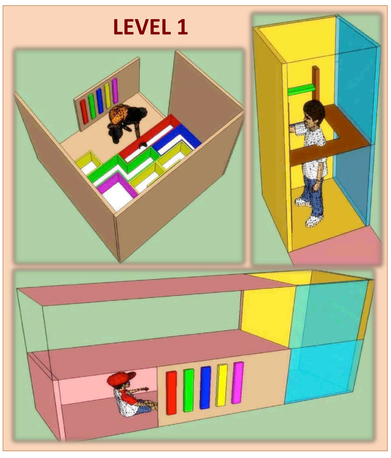
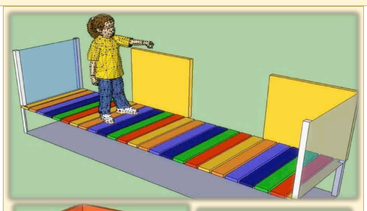
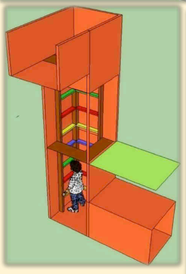
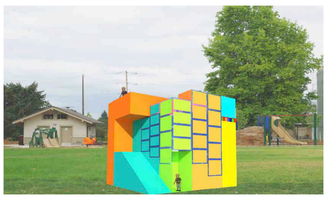
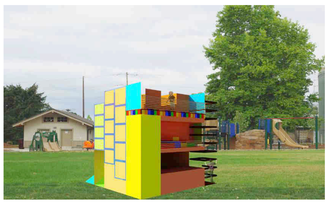


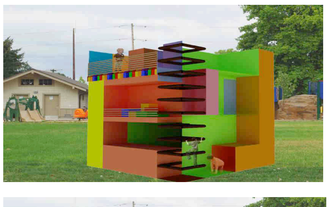


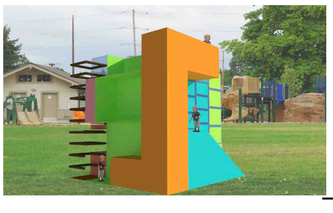


LEVEL 3

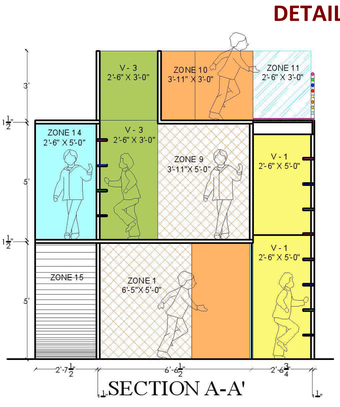




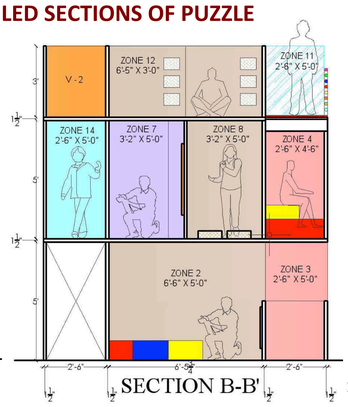




DETAILED SECTIONS OF PUZZLE



SECTION A-A'



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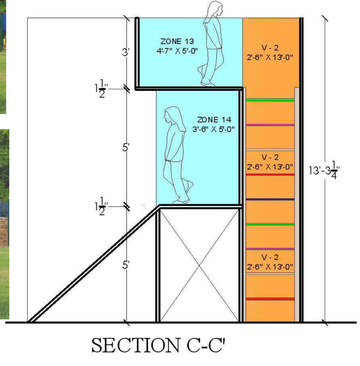

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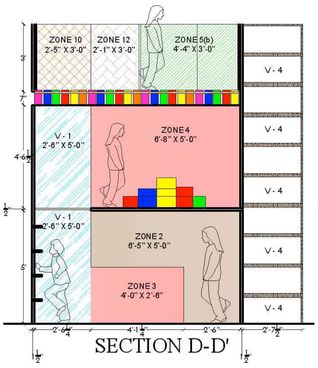
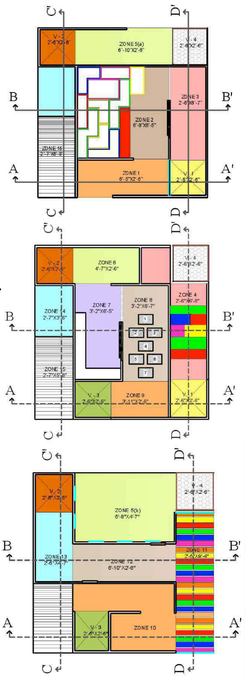


SECTION D-D'



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EXHIBITION OF ALUMNI WORK 2019