

Design:

Designing for Temporal Expansion

Mobile and Ubiquitous Games

ICS 163

Donald J. Patterson

Content adapted from:

Pervasive Games: Theory and Design

Experiences on the Boundary between Life and Play



- What does the word temporal imply?



Designing for Temporal Expansion

- Styles of Temporal Expansion
 - Ordinary life and temporally expanded game play overlap and inform each other
 - Attention shifts between game and reality rapidly
 - Defies the idea of a “play session”



Designing for Temporal Expansion

- Styles of Temporal Expansion
 - Instead of “play session”
 - active play
 - peripheral play
 - passive play
 - Not clear distinctions
 - Resists the terms
 - full play
 - not playing



Styles of Temporal Expansion

- Dormant Games
 - played passively
 - played peripherally
 - active play is forced by game actions
 - being attacked by another player
 - trigger (what could trigger a game action?)
 - active play is initiated by players
 - “attacking” while other players are dormant is a strategy



Styles of Temporal Expansion

- Dormant Games
 - non-negotiable
 - constant peripheral awareness



Styles of Temporal Expansion

- Dormant Games
 - played passively
 - played peripherally
 - active play is forced by game actions
 - for example: Tamagotchi



Styles of Temporal Expansion

- Dormant Games
- Tamagotchi problems
 - school disruption
 - babysitting



Styles of Temporal Expansion

- Ambient Games
 - Opposite of dormant game
 - Play is only initiated by the player
 - Compare to ambient music
 - easily backgrounded
 - Example Mystery on Fifth Avenue
 - Example Fantasy Sports
 - a kind of sports betting
 - you are a team manager
 - can be completely ambient

Styles of Temporal Expansion

- Ambient Games
 - Opposite of dormant game
 - Play is only initiated by the player
 - Compare to ambient music
 - easily backgrounded
 - Example Mystery on Fifth Avenue
 - Example Fantasy Sports
 - a kind of sports betting
 - you are a team manager
 - can be completely ambient

Styles of Temporal Expansion

- Ambient Games
- Fantasy Sports
 - 1 point for 25 passing yards
 - 1 point for 10 rushing yards
 - 1 point for 10 receiving yards
 - 6 points for a touchdown
 - 6 points for a passing touchdown
 - -2 points for every interception thrown or fumble lost
 - 1 point for each extra point made
 - 3 points for each 0-39 yard field goal, 4 points for each 40-49 yard field goal, and 5 points for each 50+ yard field goal
 - 2 points per turnover gained by defense
 - 1 points per sack by the defense
 - 2 points for a safety by defense
 - 6 points for each touchdown scored by defense
 - 2 points for each blocked kick

The screenshot shows the ESPN Fantasy Football website interface. At the top, there's a navigation bar with 'Fantasy Football - Free Fantasy Football' and 'games.espn.go.com/frontpage/football'. Below that, there are links for 'my ESPN', 'NFL', 'MLB', 'NBA', 'NHL', 'NCAA', 'NASCAR', 'SOCCER', and 'MORE SPORTS'. The main content area features a large image of a football player with the headline 'The Mighty Maclin'. To the right, there's a 'BASEBALL TONIGHT' section with a 'Tonight' banner. Below the main image, there are several smaller sections: 'MATTHEW BERRY' with a list of articles, 'KaraBlog by Eric Karabell', 'OFFSEASON CONTENT', 'FANTASY FOOTBALL COLUMNISTS' with a list of columnists, and 'FANTASY FOOTBALL PODCASTS'. At the bottom right, there's a 'StubHub! Ticket Center' section with a 'Find Tickets' dropdown menu.

Styles of Temporal Expansion

- Asynchronous Games
 - Softer form of Dormant Games
 - Games proceed in **turns**
 - There is time to react
 - Text messages are a good medium for this
 - Turns can have maximum time limits
 - Compare to chess
 - Casual chess
 - Professional chess



Styles of Temporal Expansion

- Temporally Seamless Games
 - Complete integration of ordinary life with game participation
 - players may not know they are playing
 - players may be asked to play a game as if it were real
 - LARP
 - expensive, cumbersome, taxing
 - the surprise of the integration is what makes this fun



Styles of Temporal Expansion

- Persistent Worlds
 - online worlds which change while you are not online
 - Second Life/Opensimulator
 - Minecraft

[second life wiki](#)

[opensimulator wiki](#)

Styles of Temporal Expansion

- Persistent Worlds
 - online worlds which change while you are not online
 - Second Life/Opensimulator
 - Minecraft



[second life wiki](http://secondlife.wiki)

[opensimulator wiki](http://opensimulator.wiki)

Styles of Temporal Expansion

- Persistent Worlds
 - online worlds which change while you are not online
 - Second Life/Opensimulator
 - Minecraft



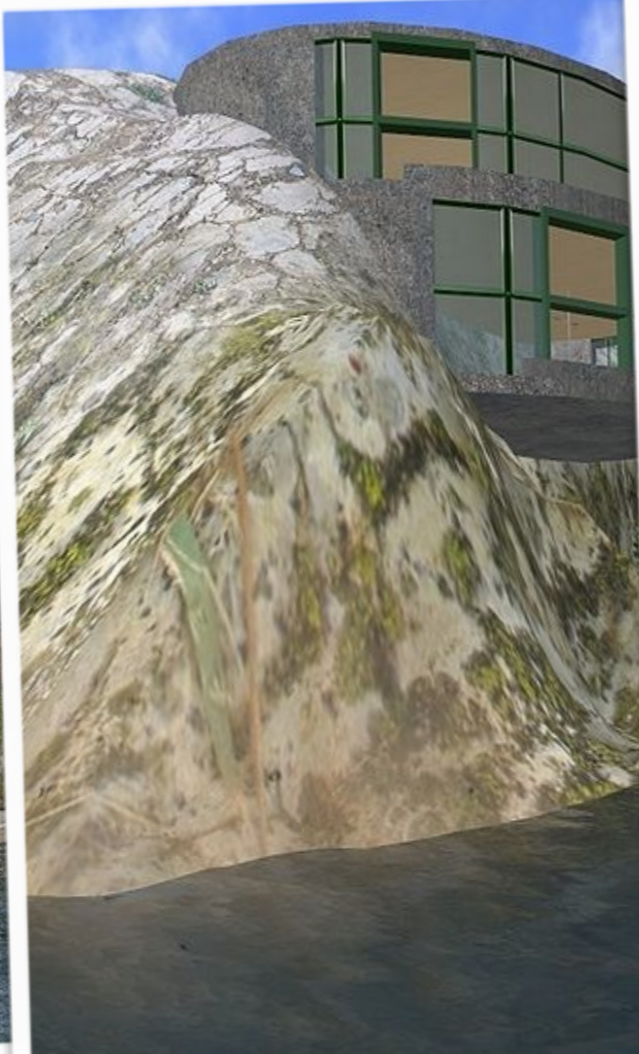
[second life wiki](https://secondlife.fandom.com/wiki/Second_Life)



[opensimulator wiki](https://opensimulator.fandom.com/wiki/Opensimulator)

Styles of Temporal Expansion

- Persistent Worlds
 - online worlds which change while you are not online
 - Second Life/Opensimulator
 - Minecraft



[second life wiki](http://secondlife.wikia.com)

[opensimulator wiki](http://opensimulator.wikia.com)

Styles of Temporal Expansion

- Persistent Worlds
 - online worlds which change while you are not online
 - World of Warcraft - partial
 - contain the seeds of
 - temporal expansion
 - dormant games

[second life wiki](#)

[opensimulator wiki](#)

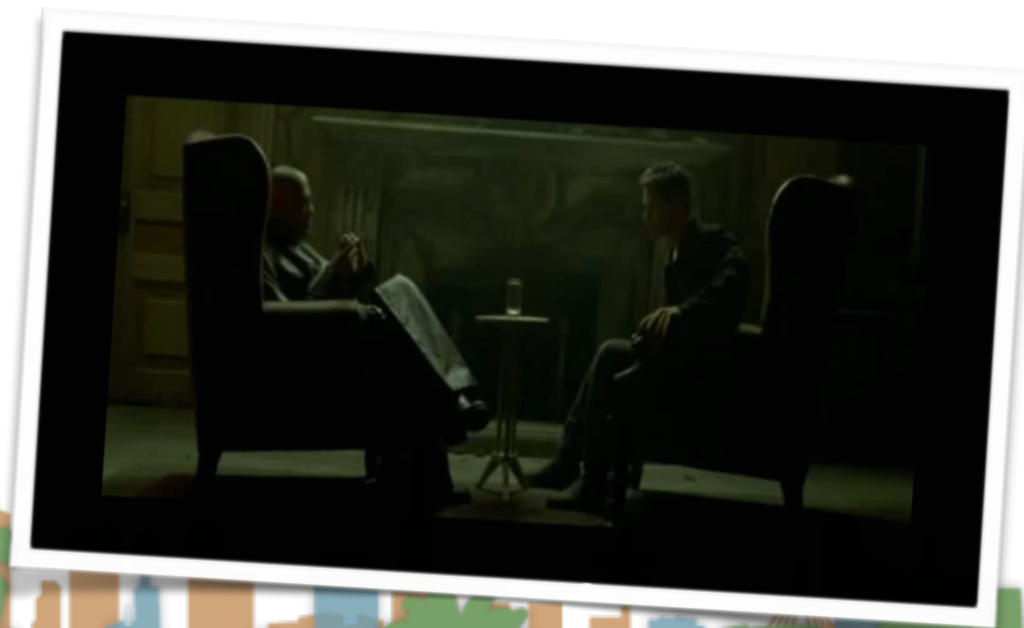
Designing for Temporal Expansion

- Structuring the Game Duration
 - Temporally expanded games are competing with real life
 - Managing a game to accommodate this can be challenging
 - Games can have explicit **phases**
 - Players may or may not know about them



Structuring the Game Duration

- Starting the Game
 - The start of a pervasive game can make or break it
 - Careful attention is needed
 - **Rabbit Holes**
 - Increasingly common
 - The Beast Example
 - The Game
 - Broken registrations



Structuring the Game Duration

- Tutorial Mode
 - just like online games, pervasive games can have tutorial rounds
 - Shelby's Logan's Run started with a fake kidnap scene



Structuring the Game Duration

- Change over Time
 - The rules can change over time
 - Can be part of the “phases”
 - Scoring systems can enforce this
 - at first find blue cars can earn points
 - later finding bluetooth beacons can earn points
- Requires player adaptation



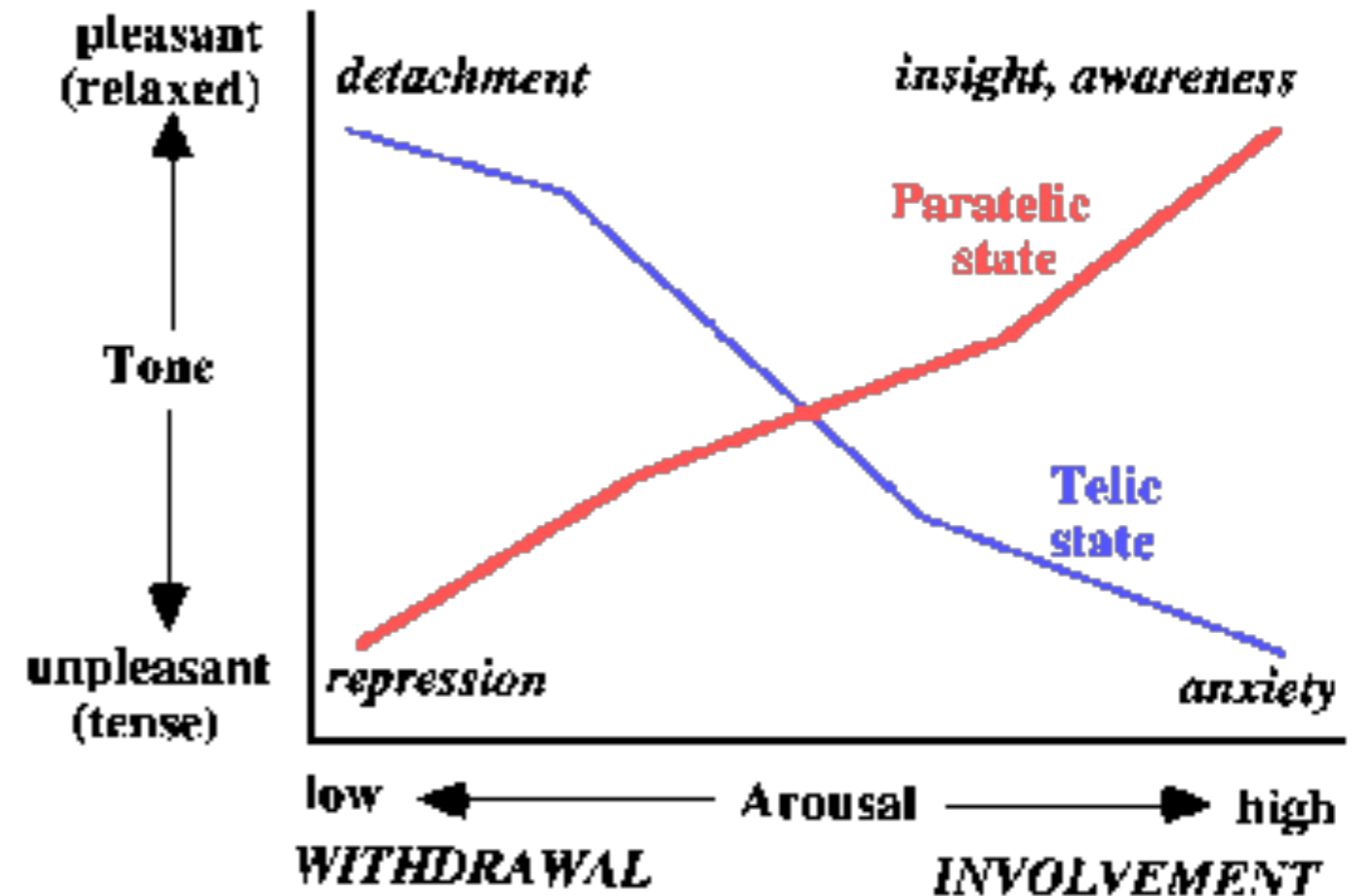
Structuring the Game Duration

- Late Arrivals and Early Leavers
 - Because of their integration with real life, players will inevitably come and go
 - Managing these players requires special planning



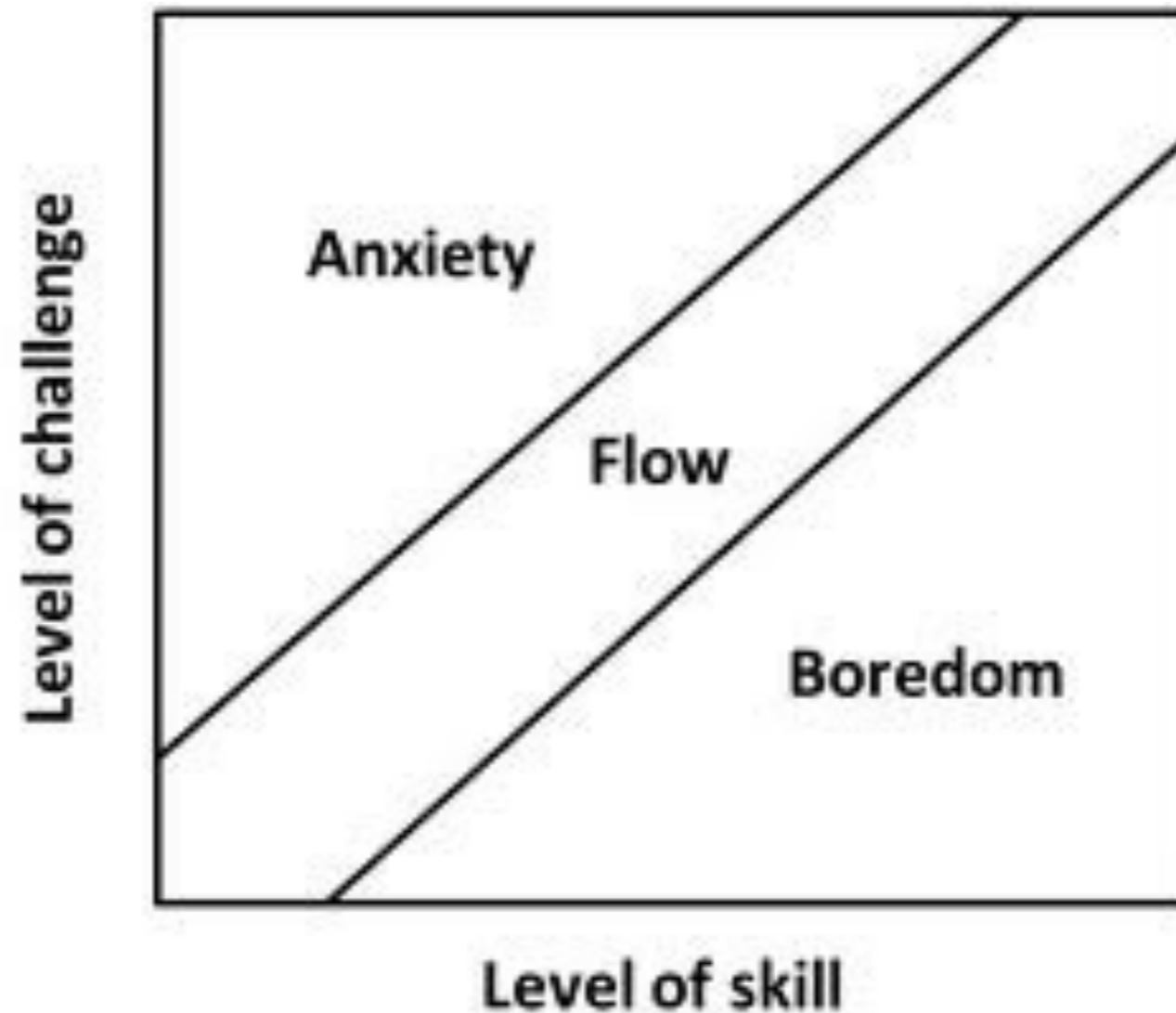
Designing for Temporal Expansion

- Managing Stress
 - Apter
 - Telic - serious
 - Paratelic - playful



Designing for Temporal Expansion

- Managing Stress
- Flow state - Csíkszentmihályi



Managing Stress

- Contextual Adaptability
 - The ability to adjust game play to real world conditions
 - Interruptability
 - Externally invisible play
 - Can make the game boring



Managing Stress

- High Stakes and Social Obligations
- High risk game situations cause social stress
 - A WOW quest that is timed during an important real-world event
 - Permanent character death



How stuff works

Managing Stress

- Interruptability
 - Allowing the game to be paused to manage stress
 - Games can allow this
 - Games can penalize this
 - “Safe zones”



Managing Stress

- Pace and Stress
- Rapid reaction time requirements increase stress



Managing Stress

- Information Overload
 - Sending many bits of information
 - email
 - text messages
 - Exacerbate real world stress



Designing for Temporal Expansion

- Summary
 - Play testing games with temporal expansion can be hard



Mystery on Fifth Avenue

- “The architectural designer Eric Clough embedded 18 clues in the Fifth Avenue apartment of the Klinsky-Sherry family, leading them on a scavenger hunt through the rooms of their home.”



Photo by Fred Conrad for NY Times

Mystery on Fifth Avenue



- “The architectural designer Eric Clough embedded 18 clues in the Fifth Avenue apartment of the Klinsky-Sherry family, leading them on a scavenger hunt through the rooms of their home.”

Mystery on Fifth Avenue



Photo by Fred Conrad for NY Times

Mystery on Fifth Avenue

- “The hunt involved ciphers, riddles, poems and custom-built furniture with hidden drawers and panels. A book with a narrative about a mystery, hidden behind paneling in the front hall, offered clues.”

Mystery on Fifth Avenue



- “The hunt involved ciphers, riddles, poems and custom-built furniture with hidden drawers and panels. A book with a narrative about a mystery, hidden behind paneling in the front hall, offered clues.”

Mystery on Fifth Avenue

- “The hunt for the book was in a custom-built furniture piece with a narrow paneling in



s and custom-
nels. A book
ehind

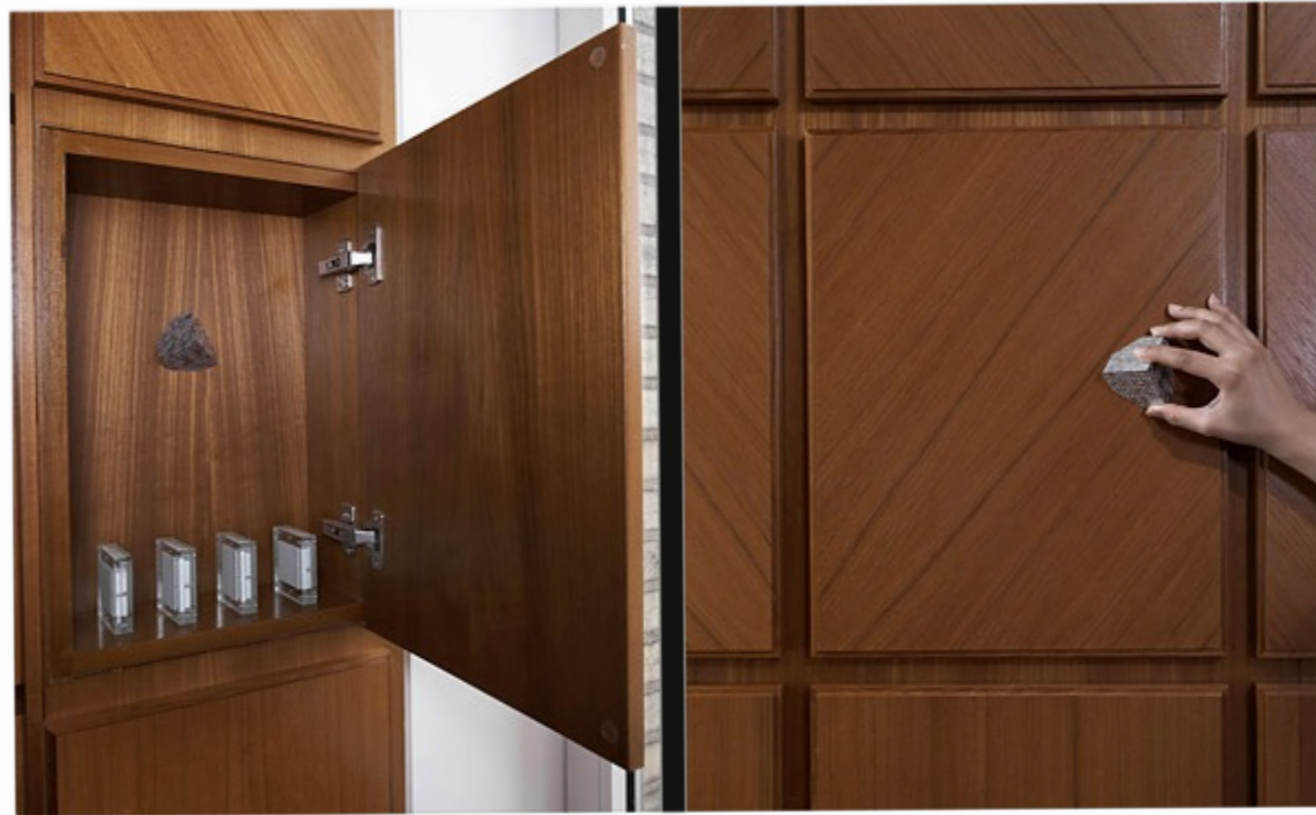
Mystery on Fifth Avenue

- “A rectangular panel in the den and guest room opens to reveal acrylic slices, that fit together to form a cube. When the chamfered magnetic cube lodged above the slices is dragged over the 24 panels on a nearby wall, they open.”

Photo by Jody Kivort



Mystery on Fifth Avenue



- “A rectangular panel in the den and guest room opens to reveal acrylic slices, that fit together to form a cube. When the chamfered magnetic cube lodged above the slices is dragged over the 24 panels on a nearby wall, they open.”

Photo by Jody Kivort

Mystery on Fifth Avenue



Photo by Jody Kivort

Mystery on Fifth Avenue

- “Behind the panels, large white letters laser-cut into teal blue acrylic spell out the words of a poem written years ago by Steven B. Klinsky, the apartment's owner, for his wife, Maureen Sherry, and their children.”

Photo by Fred Conrad for NY Times

Mystery on Fifth Avenue



- “Behind the panels, large white letters laser-cut into teal blue acrylic spell out the words of a poem written years ago by Steven B. Klinsky, the apartment's owner, for his wife, Maureen Sherry, and their children.”

Mystery on Fifth Avenue



Photo by Fred Conrad for NY Times

Mystery on Fifth Avenue

- “Decorative leather molding stamped with letters in a hallway can be popped out and wrapped around a rod removed from the foot of Ms. Sherry and Mr. Klinsky’s bed so that the letters on the coiled leather spell out a clue.”

Photo by Jody Kivort

Mystery on Fifth Avenue



- “Decorative leather molding stamped with letters in a hallway can be popped out and wrapped around a rod removed from the foot of Ms. Sherry and Mr. Klinsky’s bed so that the letters on the coiled leather spell out a clue.”

Photo by Jody Kivort

Mystery on Fifth Avenue



Photo by Jody Kivort

Mystery on Fifth Avenue

- “Behind a drawing of a plane that hangs in a hallway is a little niche containing a scale model of the kitchen, a clue that leads to a musical score written for the apartment, which is hidden in a drawer above the stove.”

Photo by Jody Kivort



Mystery on Fifth Avenue



- “Behind a drawing of a plane that hangs in a hallway is a little niche containing a scale model of the kitchen, a clue that leads to a musical score written for the apartment, which is hidden in a drawer above the stove.”

Mystery on Fifth Avenue



Photo by Jody Kivort

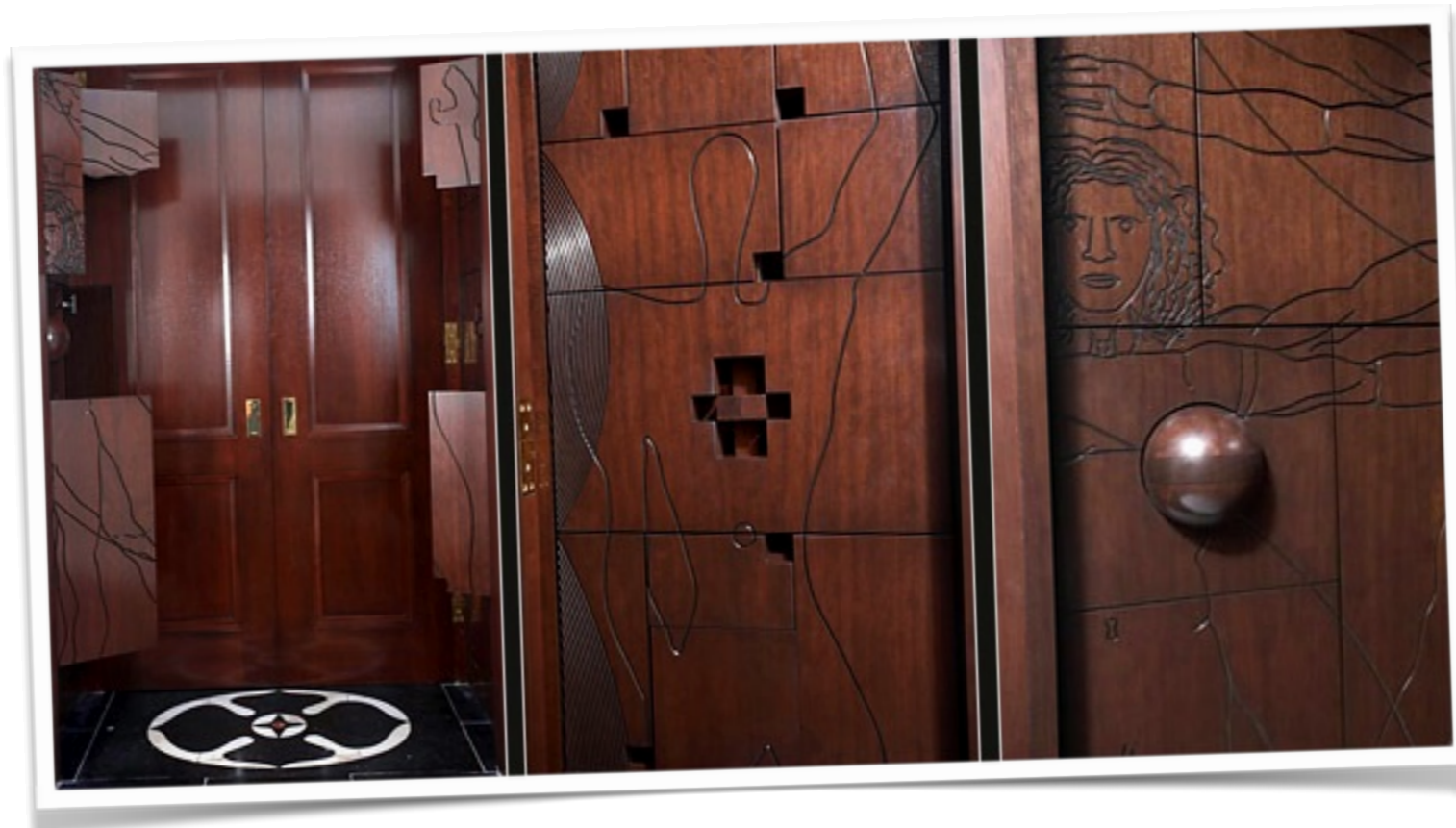
Mystery on Fifth Avenue

- “Millwork panels in a hallway were designed to look like Le Corbusier’s Modular Man and da Vinci’s Vitruvian Man. Puzzle pieces hidden in one fit together to make a key that opens the other.”



Photo by Jody Kivort

Mystery on Fifth Avenue



- “Millwork panels in a hallway were designed to look like Le Corbusier’s Modular Man and da Vinci’s Vitruvian Man. Puzzle pieces hidden in one fit together to make a key that opens the other.”

Photo by Jody Kivort

Mystery on Fifth Avenue

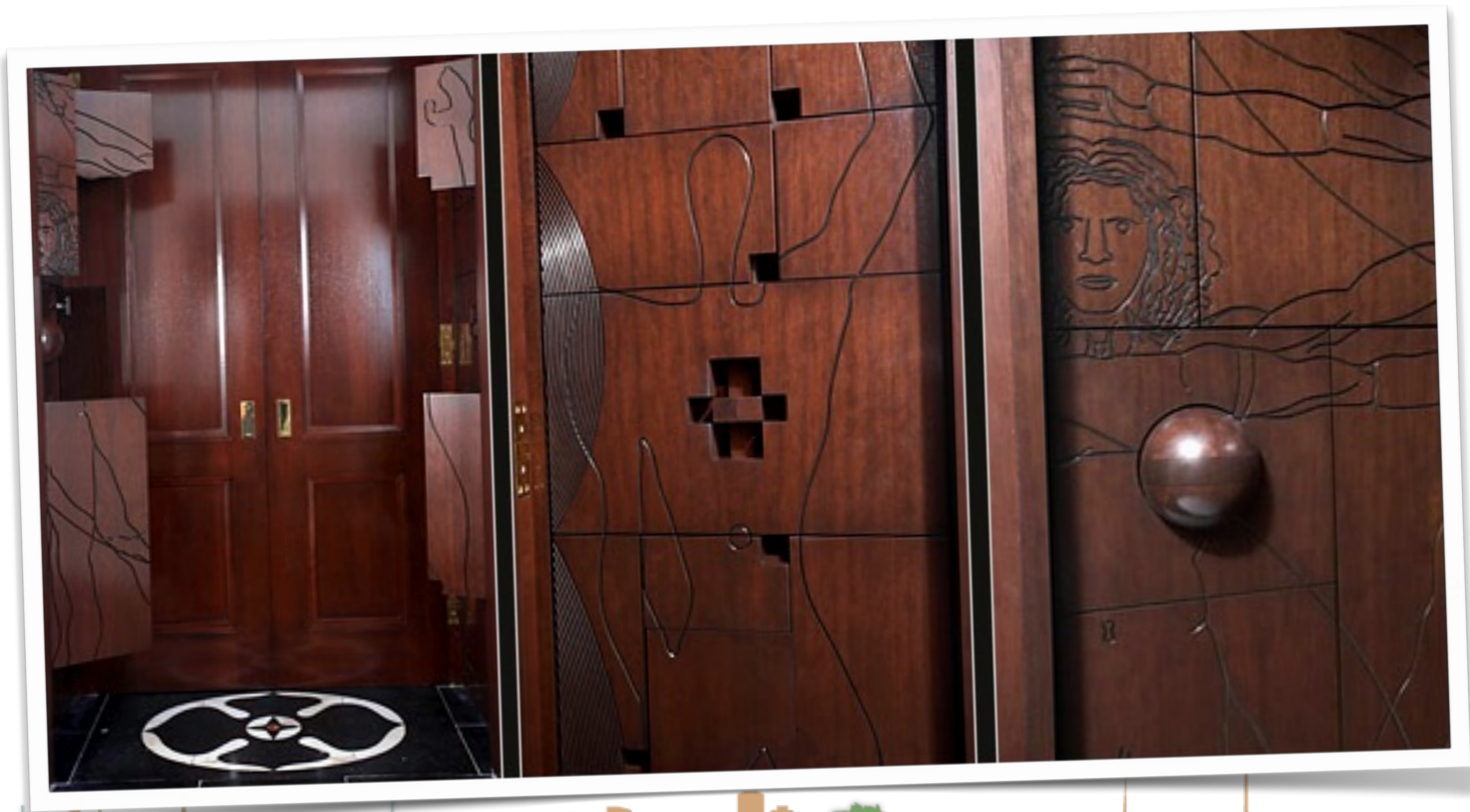


Photo by Jody Kivort

Mystery on Fifth Avenue

- Photographs of the apartment's original interiors have secret writing on the back that reveals the number of salamanders in the apartment. The salamander is a motif that is part of the puzzle and appears throughout the apartment."



Photo by Fred Conrad for NY Times

Mystery on Fifth Avenue



- Photographs of the apartment's original interiors have secret writing on the back that reveals the number of salamanders in the apartment. The salamander is a motif that is part of the puzzle and appears throughout the apartment."

Photo by Fred Conrad for NY Times

Mystery on Fifth Ave

- Photographs with handwritten notes on the apartment puzzle and



have secret
lamanders in
part of the

Mystery on Fifth Avenue

- “Door knockers on opposite walls of a hallway initially seemed pointless. They can be removed and joined to create a crank that opens hidden panels in the dining room sideboard.”



Photo by Fred Conrad for NY Times

Mystery on Fifth Avenue



- “Door knockers on opposite walls of a hallway initially seemed pointless. They can be removed and joined to create a crank that opens hidden panels in the dining room sideboard.”

Mystery on Fifth Avenue



ate

Photo by Fred Conrad for NY Times

Mystery on Fifth Avenue

- “The custom-made sideboard has hidden panels on either side that can be cranked open to display keys and keyholes.”



Photo by Jeff McNamara

Mystery on Fifth Avenue



- “The custom-made sideboard has hidden panels on either side that can be cranked open to display keys and keyholes.”

Photo by [Jeff McNamara](#)

Mystery on Fifth Avenue

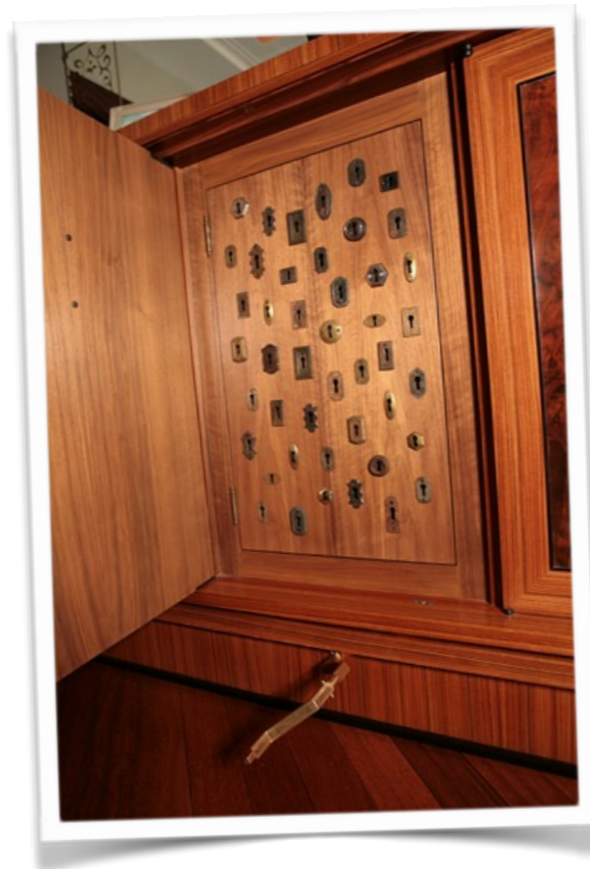


Photo by Jeff McNamara

Mystery on Fifth Avenue

- “When the correct keys are used, hidden drawers are revealed.”

Mystery on Fifth Avenue



- “When the correct keys are used, hidden drawers are revealed.”

Mystery on Fifth Avenue

- “When the c
revealed.”



awers are

Mystery on Fifth Avenue

- “The drawers contained acrylic letters and a table-size cloth imprinted with the beginnings of a crossword puzzle. The answers to the crossword puzzle led to the panels in the guest room, behind which were the words of the poem.”



Photo by Fred Conrad for NY Times

Mystery on Fifth Avenue



- “The drawers contained acrylic letters and a table-size cloth imprinted with the beginnings of a crossword puzzle. The answers to the crossword puzzle led to the panels in the guest room, behind which were the words of the poem.”

Mystery on Fifth Avenue



guest room, behind which were the words of the poem.”

Photo by Fred Conrad for NY Times

Mystery on Fifth Avenue

- “The children’s bedrooms have radiator covers with poems written specifically for each child cut into them in code. The Caesar Shift cipher in the bedroom of the oldest child, Cavan, was broken by a friend.”



Photo by Fred Conrad for NY Times

Mystery on Fifth Avenue



- “The children’s bedrooms have radiator covers with poems written specifically for each child cut into them in code. The Caesar Shift cipher in the bedroom of the oldest child, Cavan, was broken by a friend.”

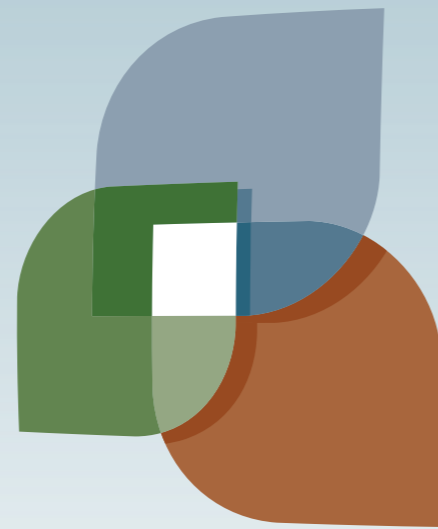
Mystery on Fifth Avenue



Photo by Fred Conrad for NY Times

- How did “The Mystery on Fifth Avenue” create temporal expansion?





L U C I

