



**PLEASE STAND BY**

# Fallout: A Postmortem

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# Fallout overview

- Development began in early 1994
- Shipping
- Team size
- Total cost



# Not your typical Interplay game

- No license
- No engine
- No budget
- No staff
- No plan

# Fallout postmortem

- One take-away: AMAZING TEAM
- Influences
- Challenges
- Legacy

# Influences

- Computer games
- Paper & Pencil and board games
- Books
- Movies

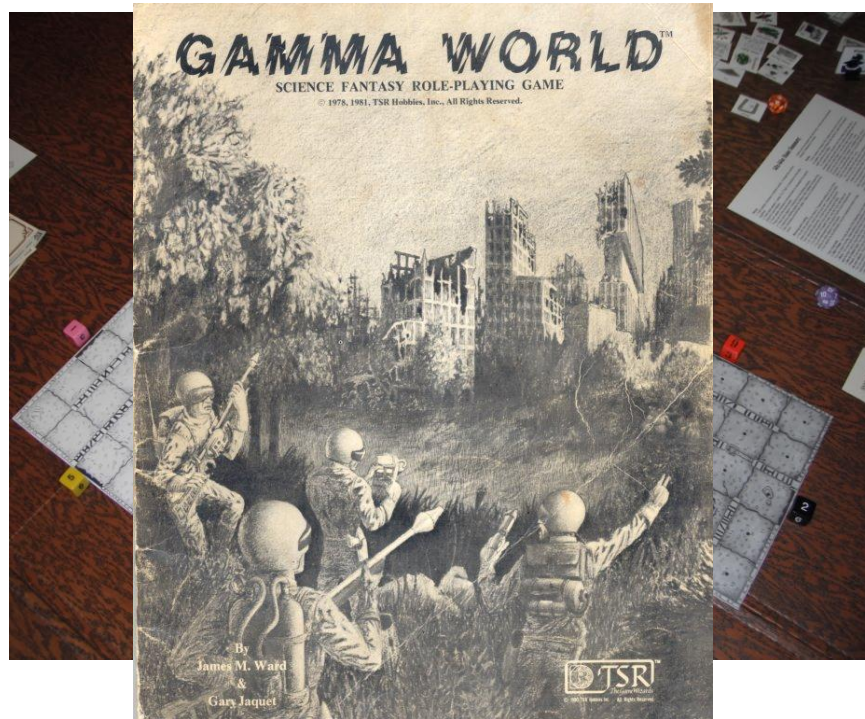
# Computer game influences

- XCOM
- Crusader
- Wasteland
- Ultima series



# Paper and board game influences

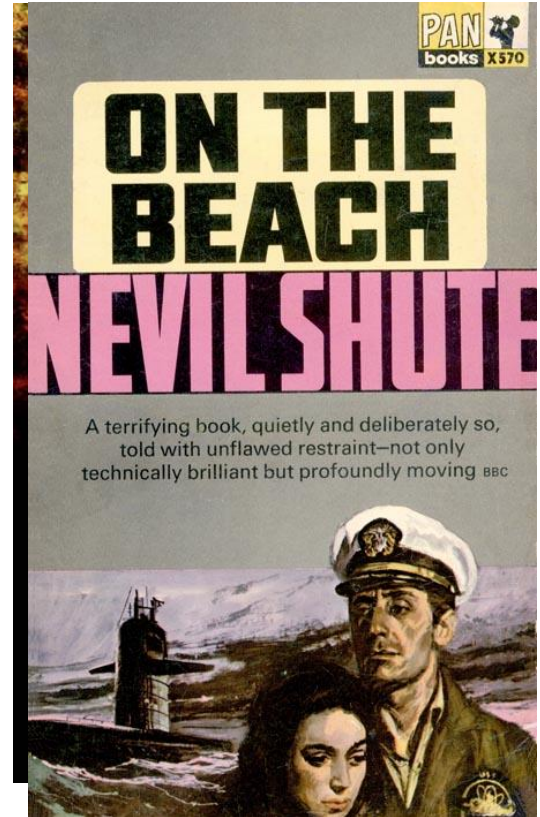
- GURPS
- WizWar
- Gamma World





# Book Influences

- *A Canticle for Leibowitz* by Walter M. Miller
- *I Am Legend* by Richard Matheson (and the movie Omega Man)
- *On The Beach* by Nevil Shute (and the film)



# Movie Influences

- Road Warrior
- A Boy And His Dog
- The Day After
- Forbidden Planet
- City Of Lost Children
- La Jetée



# Challenges

- Team
- Design
- Technical
- Legal

The game was almost canceled...twice!

# Team challenges

# No resources

- Just me for first six months
- 1 artist and 1 scripter
- 15 people in year 2
- 30 people in year 3



# Early development

- Rough
- First prototype (circa 1994)



# Conveying the idea

- Hiring new people
- Explaining to marketing
- Convincing the administration

Chris Taylor made a wonderful vision statement.

# Fallout vision statement

## FALLOUT

A GURPS Post Nuclear Adventure

### *Vision Statement*

*(or why this game is damn cool)*

*1. Mega levels of violence (you had better give us that Mature rating right now)*

You can shoot everything in this game: people, animals, buildings and walls. You can make “called shots” on people, so you can aim for their eyes or their groin. Called shots can do more damage, knock the target unconscious or have other effects. When people die, they don’t just die – they get cut in half, they melt into a pile of goo, explode like a blood sausage, or several different ways – depending on the weapon you use. When I use my rocket launcher on some poor defenseless townsperson, he’ll know (and his neighbors will be cleaning up the blood for weeks!)

This is the wasteland. Life is cheap and violence is all that there is. We are going to grab the player’s guts and remind him of this.



# Final team challenge: long hours

- Team was very small
- Most worked nights and Saturdays
- Crunch meant working 12-14 hour days
- QA volunteered to work weekends for free

# Design challenges

# Setting

- Considered fantasy
- Then time travel: dinosaurs to space
- Invading aliens
- Finally...post-apocalyptic

# D&D license

- Interplay acquired Forgotten Realms and Planescape in late 1994
- Fallout considered for cancellation
  - Treated as a B product
  - Too competitive with other products
- In the end...I begged

# View

- 3<sup>rd</sup> person
- Isometric (cavalier oblique)
- Hexes
  - Good for rotation
  - Good for distance calculation
  - Bad for up-down movement

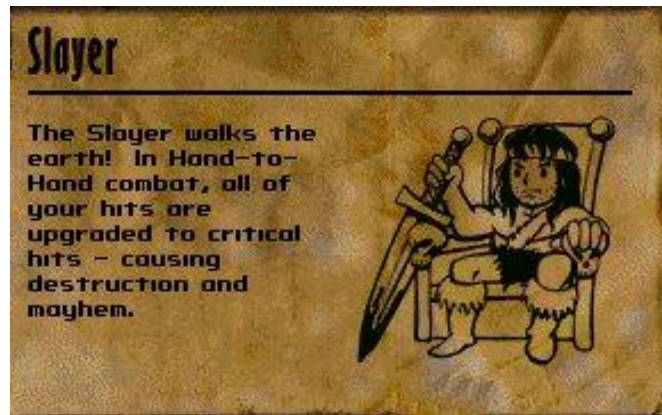


# Game timer

- Player had to finish first quest in set time
- Added for a sense of urgency
- Controversial, even among the team
- Removed in first patch

# Cultural references

- A lot: TV, movies, games
- Worried about losing players, feeling dated
- Rule for jokes and references:
  - If the player doesn't get them, they shouldn't even notice them.



# Example: Gizmo

- Good name by itself
- Gremlins reference?
- Nope. Inside joke.





# Naming the game

- Vault13
- Alternates:  
Aftermath, Survivor,  
Postnuclear Adventure
- Fallout



# Naming the system

- New system of seven stats: Agility, Charisma, Endurance, Luck, Intelligence, Perception, Strength
- ACELIPS
- Jason Suinn suggested SPECIAL

# The coming of Diablo

- Released late 1996
- Real-time, multiplayer, isometric RPG
- Comparisons, doubts, meetings



# Technical challenges

# Flat memory

- We chose a linear memory model
- Upsides
  - No expanded or extended memory
  - No near and far pointers
- Downside
  - Old code was rewritten or tossed

# Super VGA

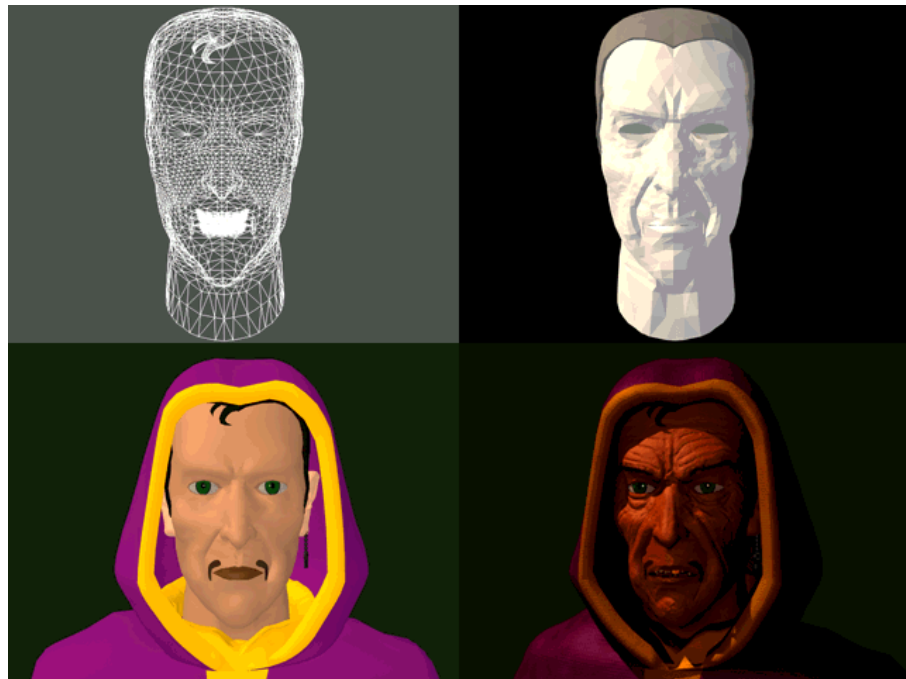
- 640x480 with 256 colors!
- Art made with 16-bit color
- Color cycling reduced palette
- Until VESA in 1994, each video card chipset was separately coded

# Sprites

- Gave high detail
- Led to large memory footprint
- Polygons just beginning to be popular

# Talking Heads

- Leonard Boyarsky's idea
- Scott Rodenhizer made most of them
- Took 8 weeks / head
- Then came phoneme matching!





# Followers

- Not in original spec
- No time to code
- Added thru script
- Well-received
- Major source of bugs



# Win95 certification

- Interplay wanted the Win95 logo
- Failed cert because we worked on WinNT
- Recoded installer to fail
- (hand installation still worked)

# Simultaneous Mac development

- Assisted by an OS abstraction library
- 1 Mac person on team of 30 (Tim Hume)
- Interchangeable save games

# Legal challenges

# GURPS

- Fallout was based on this license
- Disagreement over design and art
- Too late to change these
- Fallout almost canceled again
- GURPS torn out, skills and combat redesigned and recoded in 2 weeks

# Music

- Chose Inkspots
- Wanted "I don't want to set the world on fire"
- Negotiations were slow, too expensive
- Picked a new song: "Maybe"
- Fit the beginning and ending movie better

# Rating

- Originally went for T for Teen
- Violence, drugs, sexual references
- Got an M rating!

# The child-killing controversy

- We allowed it, huge ramifications in game
- Contributed to the M rating
- Had to be removed in European SKU



# Legacy

- Shipped in October 1997
- Risk paid off
- Many features and development processes still seen in games today
- Let's look at what worked...

# Open world

- Sandbox before the term
- No area restricted
- Only limits were creature difficulty

# Non-linear story

- Player free to go where he chose
- Story unfolded naturally over time
- Multiple solutions to quests and story

# Multiple endings

- Game tracked your behavior
- Quest and story endings based on what you did
- Game's end slides reinforced this

# No morality

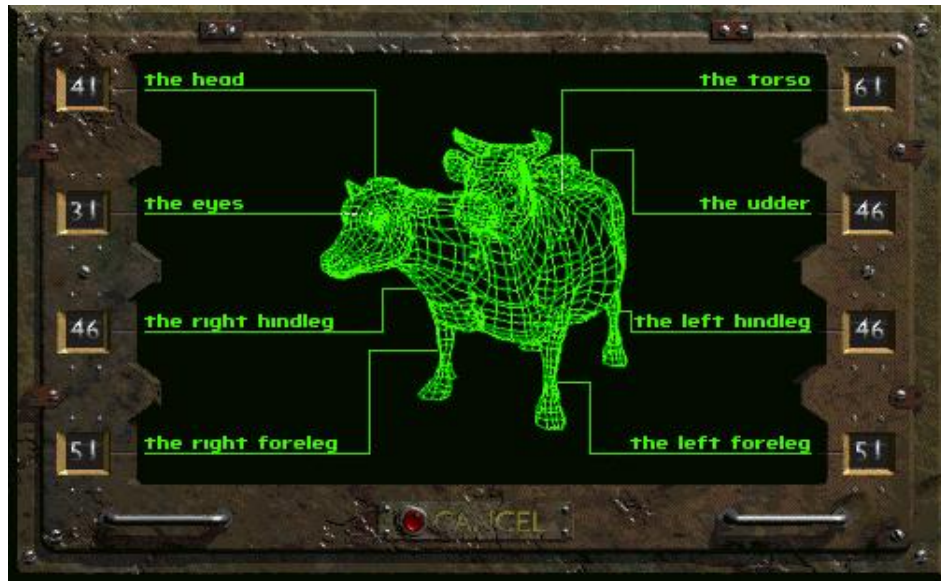
- Grey-area quests
- Player can be good or evil
- Must live with consequences

# Perks

- Brian Fargo wanted more than skill raises
- Invented by Chris Taylor in a day
- Characters can grow and differentiate
- Easy to implement
- Influenced D&D 3, WoW, Oblivion, Skyrim

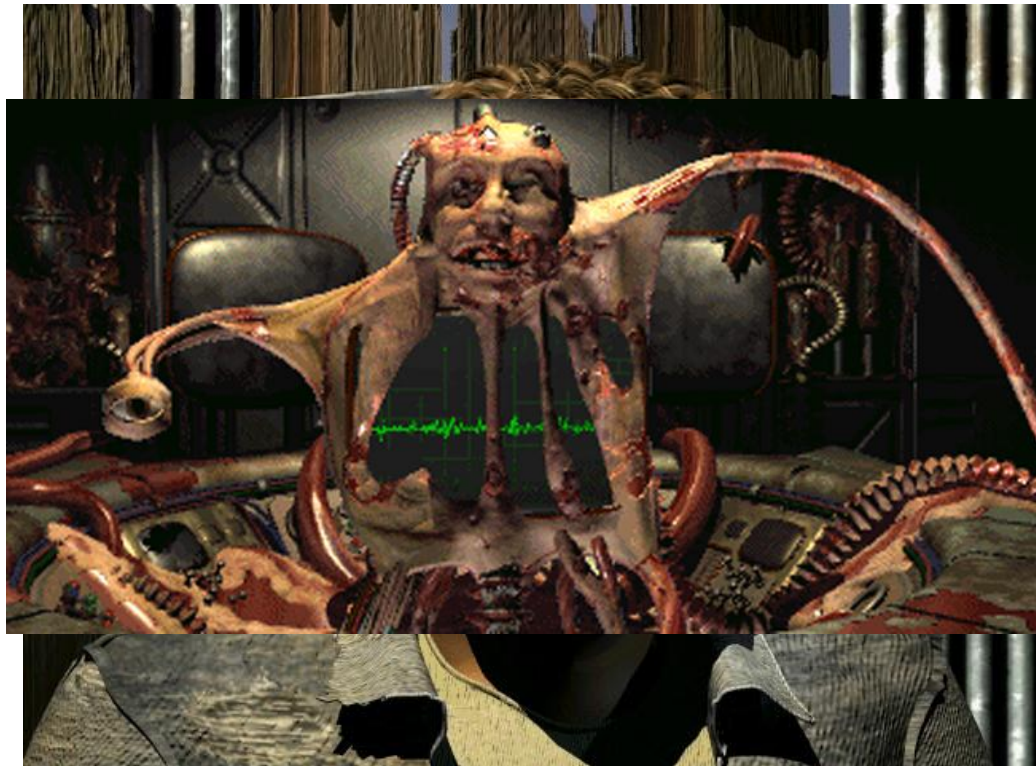
# Called shots

- Added variety to combat
- Allowed multiple reactions to the same combat attack
- Supported our dark humor motif



# Faces and VO

- Detailed faces, famous actors
- Connected to people
- Expensive





# Ambient music

- Made as a score
- Wanted the player to listen
- Underscored desolation of the setting

# Development processes, part 1

- Vision statement
  - Coordinated the team
  - Communicated to the company
  - Assisted marketing

# Development processes, part 2

- Reusable software
  - OS abstraction
  - Movie player
  - Script engine

# The game as an experience

- Box
- Manual
- Logo
- Interface
- Splash screens
- Web page



# Amazing team

- Talented
- Hard-working
- Ego-less
- Focused on the same goals

Thank you!