

# ASSASSIN'S CREED ORIGINS

Going Off-Script

Refactoring the NPC Mission System

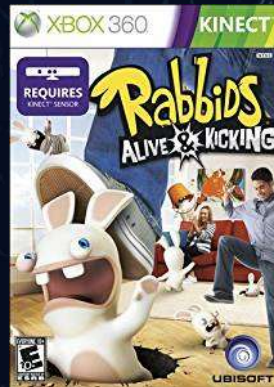


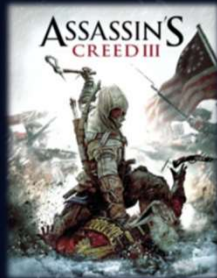
PLAYER FREEDOM AND EPIC STORY



# Speaker

- Jean-Marie Santoni-Costantini
- Gameplay programmer
- 12 years in games





LINEAR  
NARRATIVE



OPEN  
OBJECTIVES





**LINEAR  
NARRATIVE**



**OPEN  
OBJECTIVES**



# GOAL-ORIENTED NPCs TO CREATE NARRATIVE MOMENTS

# Typical ACO Experience







**USING  
GOAL-ORIENTED NPCs**



**NEW PERSPECTIVE  
ON MISSION DESIGN**







# USING GOAL-ORIENTED NPCs

STANDARDIZE NPCs behavior

MANAGE open world chaos

We need more autonomous NPCs !!





Give NPCs a role and let them act!





Soldiers on horse escorting a cart





Goal

Soldiers on horse escorting a cart







Goal



Behavior

Soldiers on horse **escorting** a cart





Goal



Behavior



Parameters

Soldiers **on horse** escorting a cart





Goal



Behavior



Parameters

Contextual behavior





Contextual behavior



Contextual behavior



**HOW TO**



Goal



Behavior



Parameters





Goal

Always one goal

NPC can have sub-targets

Any persistent game object

Specific game object or found with criteria



Objective





Behavior

Action associated with the goal

Same behavior as those used in the world





Behavior





Parameters

Adapt the logic to the context

Not all parameters exposed



Parameters





Contextual behavior



**EXAMPLES**



Defend



The outpost



Patrolling



Relax





Search



The player



Searching



Alerted







Bodyguard



Unique NPC



Protect



Relax

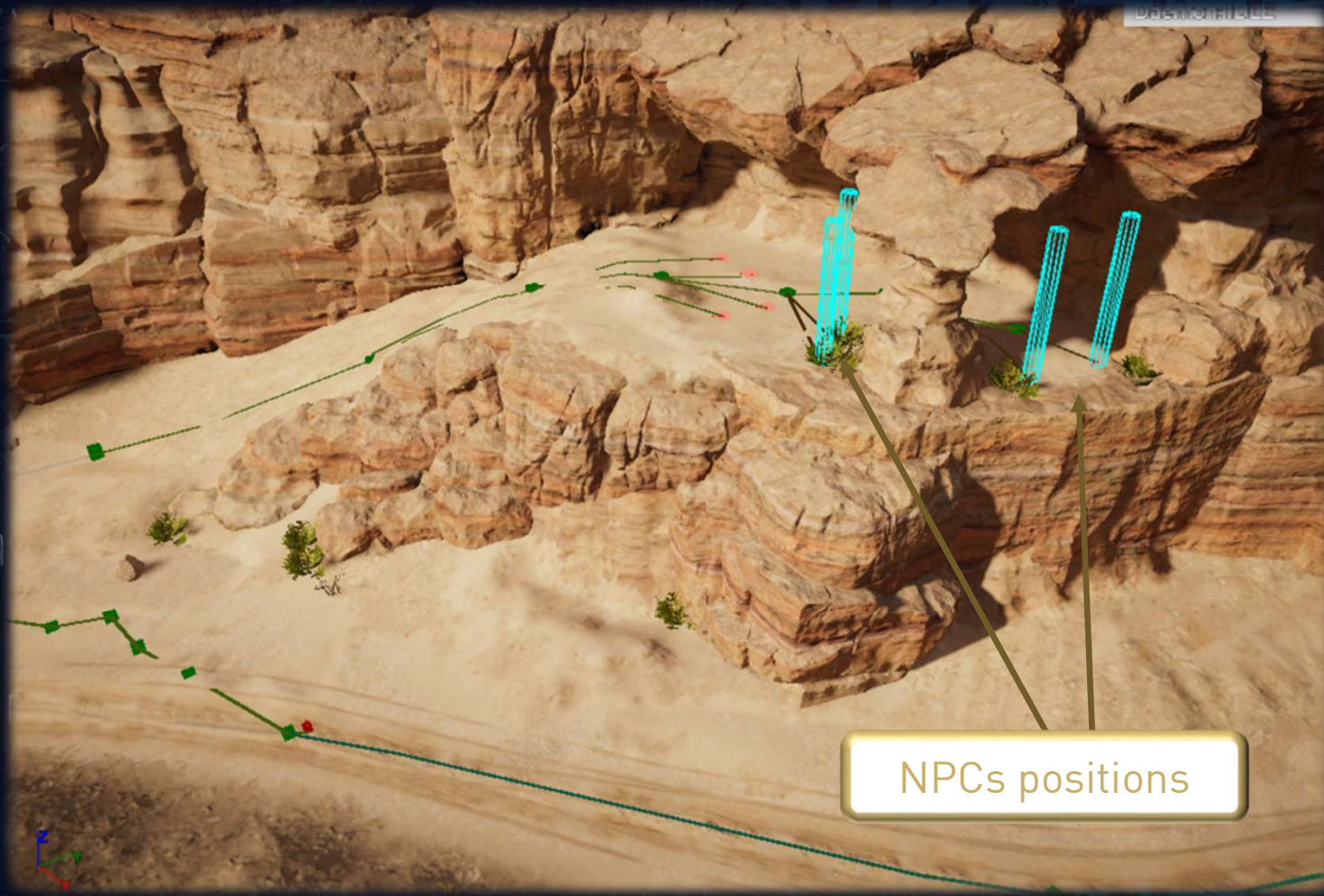


Contextual behavior



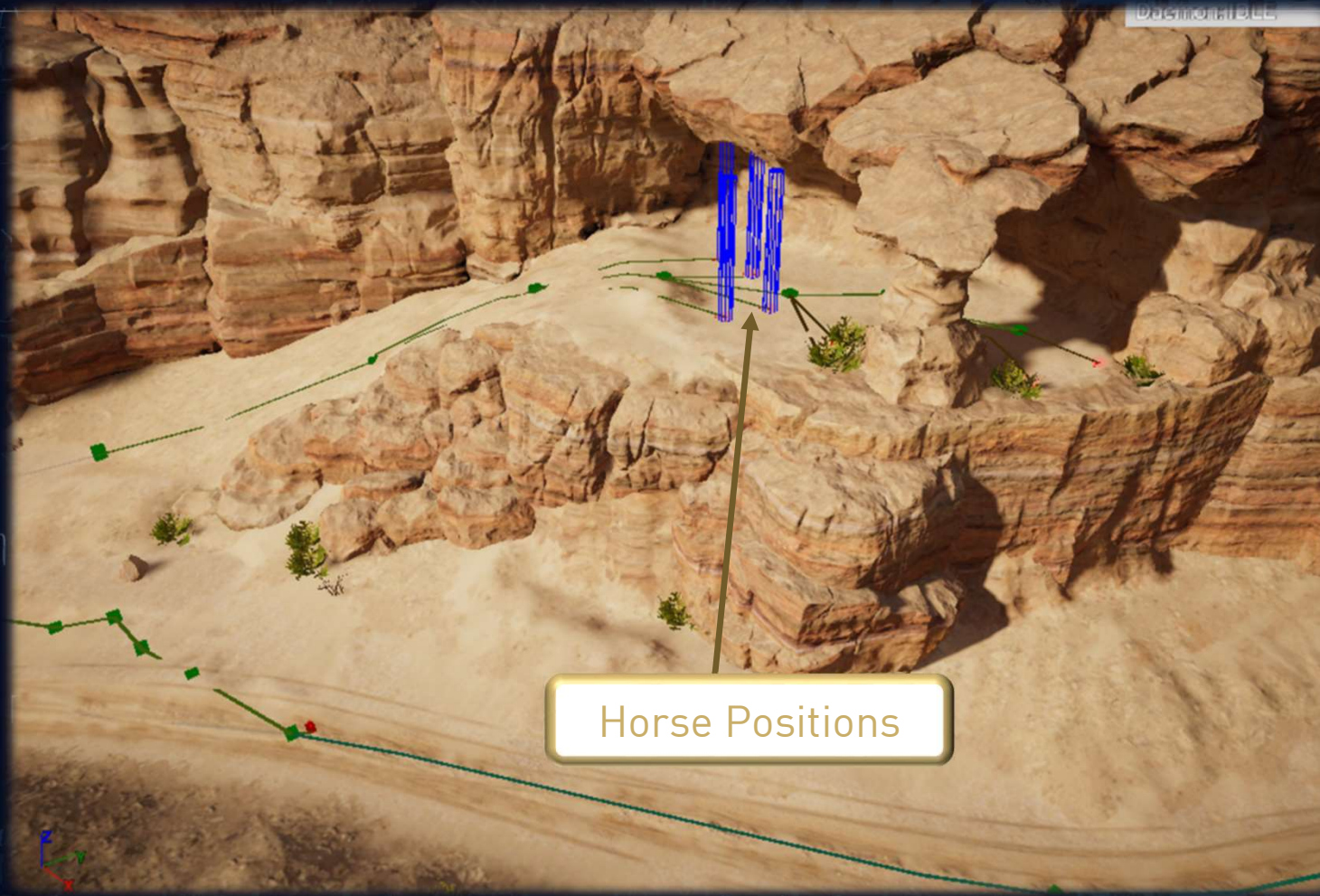
**USING ENVIRONMENT**

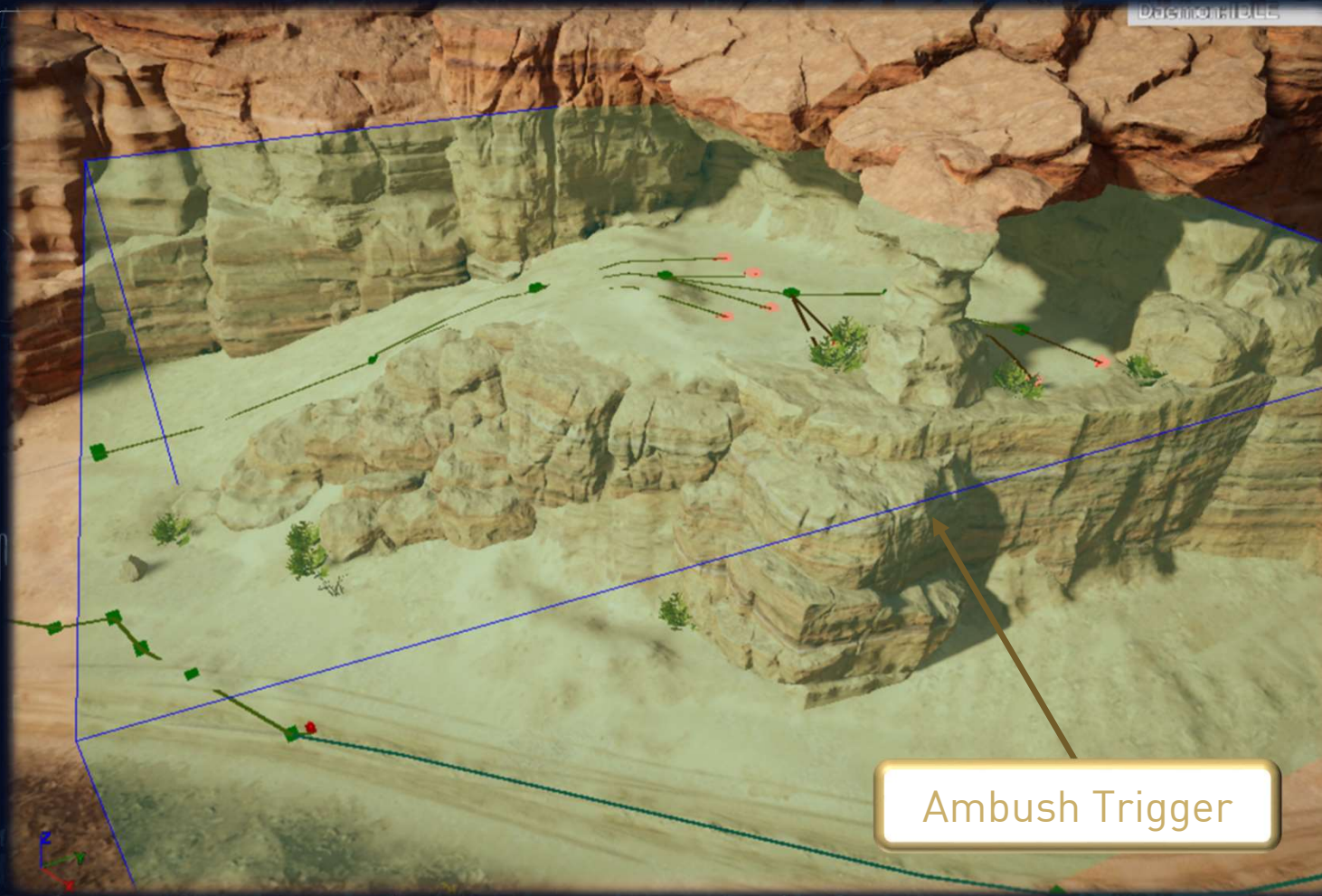




NPCs positions

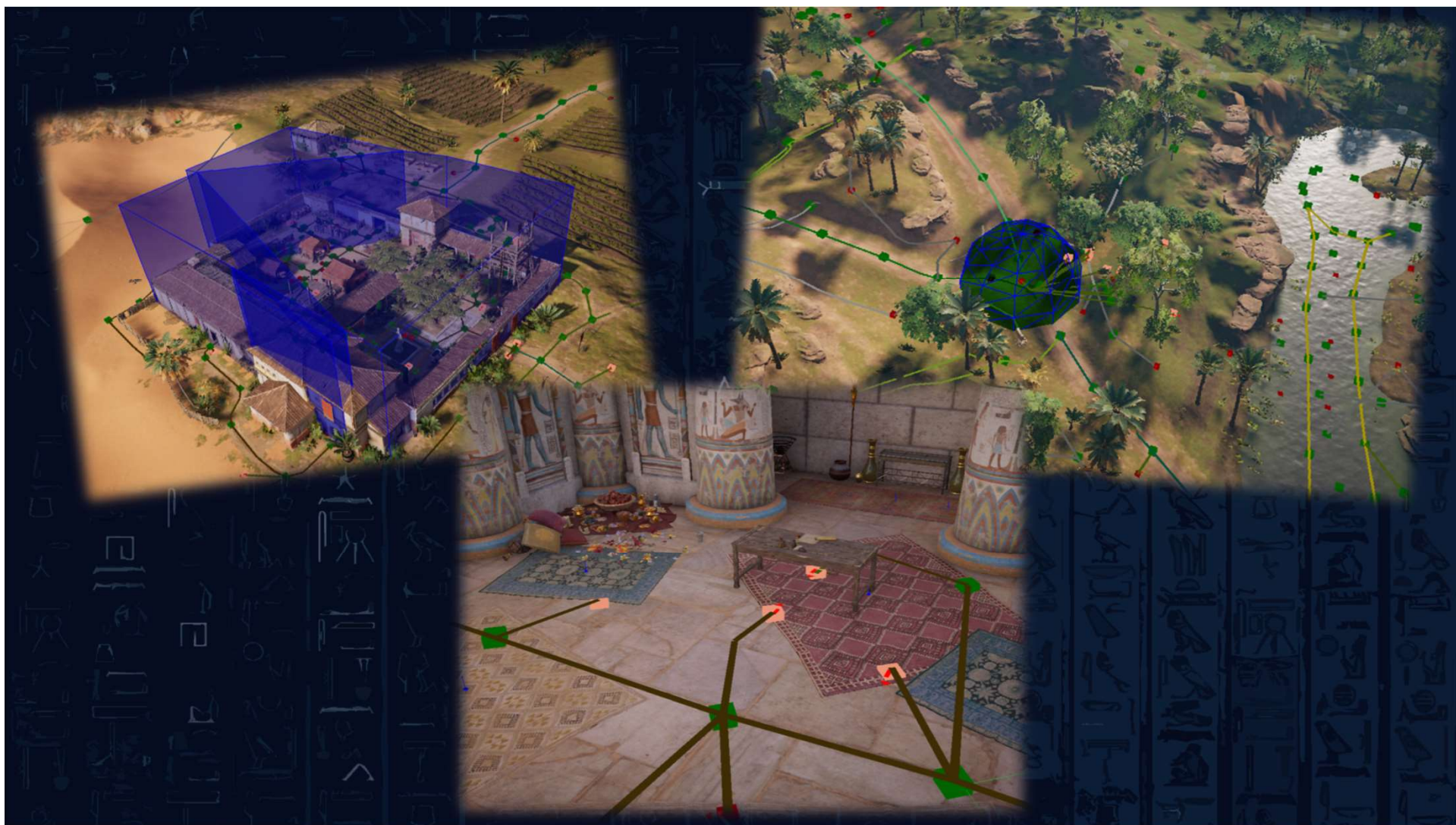






Ambush Trigger







Contextual behavior



**RULES**

Can be interrupted and resume



Reliable, adapt to current environment state





Reliable, adapt to current environment state



Contextual behavior



GoTo



# GoTo



**Flavor dialog while  
moving**



**Vehicle support**



**Handle edge cases**



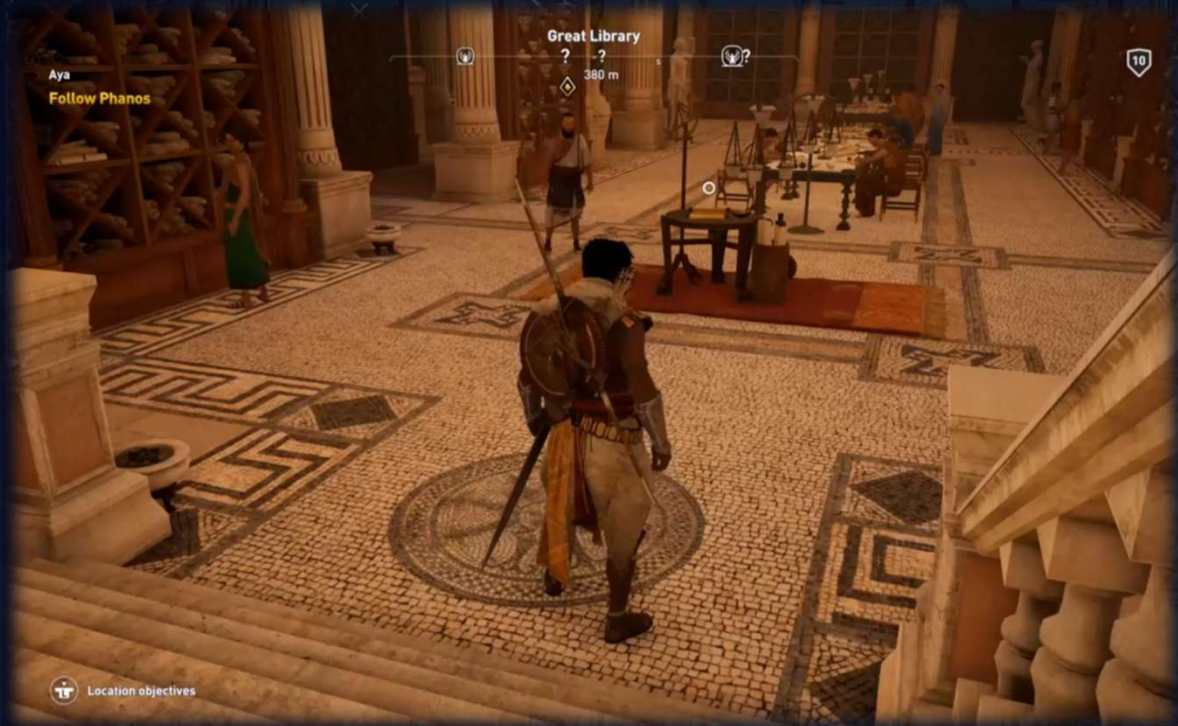


## Walk And Talk

Waiting for the player

Adjust player speed

Link to dialog ending





## Follow

use vehicles

No mission failed

Fight and resume



Contextual behavior



**SPEED UP DEBUG**

**GLOBAL MISSION  
IMPROVEMENT**

**VIRTUALIZATION**



**TECH DEPENDENCY**

**NO EXOTIC MISSION**





USING  
GOAL-ORIENTED NPCs



NEW PERSPECTIVE  
ON MISSION DESIGN

# Mission Design A NEW REALITY

MISSIONS  
RELIES ON  
SYSTEMS



MISSIONS  
ARE DESIGNED AS  
LINEAR/SPECIFIC  
SERIES OF EVENTS



Good  
Plan?









*I want the player to lose its inventory*

*I want those Bodyguard to NOT follow their boss if the player...*

*I want that Priest to cough every 15 seconds...*

*I want these archers to stay on their spots to shoot arrows...*

*I want Senu to be captured in my Quest*

*Prisoner to hide in here when he is freed*

*I want that NPC to ignore the enemies around him*

*I want that NPC to NOT die when he get killed*

*I want this NPC to sound an alarm when he sees the player*

*I want the NPC to follow the player but not inside that fort*

*I want this NPC to be chased by the player but never caught...*

*I want my NPC to take That path*

*I want that NPC to sound an alarm when he sees the player*

*I want that NPC to sound an alarm if he sees the player*



*I want the player to lose its inventory*

*I want that Priest to cough every 15 seconds...*

*I want those Bodyguard to NOT follow their boss if the player*

*I want these archers to stay on their spots to shoot arrows...*

*I want Sen*

*quest*

*Prisoner to hide in when he is freed*

*I want that NPC to ignore the enemies around him*

*that he does NOT die*

*this NPC to sound an alarm when he sees the player*

*I want the NPC to be chased by player but not inside the*

*NPC to be chased by player but never caught...*

*I want my NPC to take That path*

*I want that*

*I want that NPC to sound an alarm if he sees the player*

# MINDSET CLASH

**DESIRE  
CONTROL**

**WANT  
EXCEPTIONS**



**BUILD GENERIC  
SYSTEMS**

**STRUGGLING TO  
MAKE THE  
'NORMAL' WORK**





## SECRET RECIPE OF SYSTEMIC QUEST

*The majority of the side quests have been crafted with care,  
many carrying their own miniature narratives*

<http://www.trustedreviews.com>

*Almost all sidequests lead to some sort of  
interesting twist or turnabout*

<http://www.kotaku.com>



Refactoring the mission system

# CONCLUSION

**EMBRACE  
SYSTEMS**

**'WHAT' NOT 'HOW'**

**FORGET THE GOLDEN  
PATH**

**FLEXIBILITY OVER  
CONTROL**

**CLEAR TOOLBOX**





**NEXT STEPS**





**CONTINUE  
ON PATH**



**IMPROVED  
COLLABORATION**



**EXPLORE  
NARRATIVE SYSTEMS**



Thank you!  
Questions?