

Slide 1

# Architectural Visualization with AI: A Hands-On Workshop

WE121  
June 4, 2025 1:00 pm – 3:30 pm  
2.5 RIBA/LU

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Slide 2

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Slide 3

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Questions related to specific products and services may be addressed at the conclusion of this presentation.

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Slide 4


AIA25

Leadership in Healthcare Design


Speakers



Chris Hoal, AIA  
Director of Healthcare Design  
Gresham Smith



Reid Cimala, AIA  
Studio Design Leader  
Gresham Smith



Ellen Fuson, AIA  
Associate  
Gresham Smith

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Slide 5

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Leadership in Healthcare Design

Gresham Smith

58

Years in Business

1200

Employees

25

Offices

#10

Most Innovative Architecture Firm, 2022  
Fast Company

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Slide 6

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Leadership in Healthcare Design

Publications & Conferences

- 2025 Fast Company Magazine – *The Invisible Future of Healthcare*
- 2025 PDC Forum – *Principles of Healthcare Futurism*
- 2025 AUGIWORLD Magazine – *Beyond Plan, Section & Elevation*
- 2024 World Business Forum – Keynote Address
- 2024 Healthcare Design Magazine – *Breaking Through*
- 2024 Healthcare Design Conference – Breaking Through Finale Keynote
- 2024 Delve Magazine – *Healthcare's New Wave*
- 2024 Delve Conference – Keynote Address

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Slide 7

**AIA25** Architecture  
in  
AI Design

**Learning Objectives**

- Participants will receive an overview of the landscape of AI tools available to architects today. We will compare the advantages of different "text to image" tools Midjourney, DALL-E, and Stable Diffusions and "image to video" tools like Runway, Kling, and Luma.
- Participants will gain a clear understanding of how AI can be integrated into a design process; including visioning, concept design, rapid prototyping, and story telling.
- Participants will gain live experience with AI image and video tools as the attendees of the workshop collaboratively produce a shared design concept. Attendees will experiment individually at each step, then share results while discussing tips and tricks.
- Participants will see examples of competition level AI images and video content produced by the speakers and discuss a range of possible applications for technology.

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Slide 8

**AIA25** Architecture  
in  
AI Design

**Agenda**

- Presentation: "Architectural Visualization with AI" (30 min)
- Workshop 1: Mood Board Concept Renderings (55 min)
- Workshop 2: Storytelling with Animation (55 min)
- Report-out: Review of Audience Work (10 min)

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Slide 9

**AIA25** Architecture  
in  
AI Design

**LINKS**

- Miro Board:  
<https://tinyurl.com/AIA25Boston>  
<https://miro.com/app/board/uXIVl5v5JLM=/>  
Password: AIA25Boston!
- Rendair: (sketch to render)  
<https://www.rendair.ai/>
- Midjourney: (text to image)  
<https://www.midjourney.com/home>
- Runway: (image to animation)  
<https://runwayml.com/>

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Slide 10

# Architectural Visualization With Artificial Intelligence

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Slide 11

**AIA25** Architecture  
Illustration  
& Design  
**Design Presentations Will Never Be The Same**

What tools do designers have?

- To establish context: [Site Plan](#), [Physical Models](#)
- To communicate ideas: [Concept](#), [Parti Diagrams](#)
- To convey feeling: [Rendering](#), [Vignettes](#), [Visioning Boards](#)
- To address details: [Plan](#), [Section & Elevation](#)

... all to prove your design does what you say it does.

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**AIA25** Architecture  
Illustration  
& Design  
**Design Is Sales**

OK, fine. But are these media effective to communicate with...

- Physicians and Care Providers
- Business Owners
- Investors or Accountants
- Government Employees
- Educators and Administrators

... when the only goal is to tell a convincing story?

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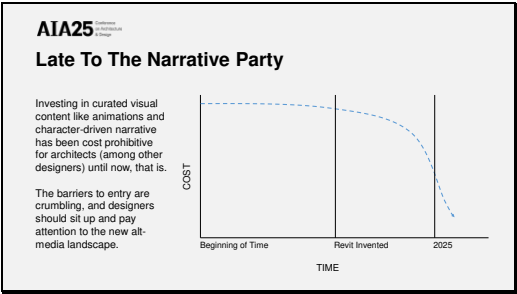
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Slide 13



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Slide 14



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Slide 15

**AIA25**  
Architecture  
Illustration  
& Design

### Architects As Directors

How is generative AI video different from a rendered walkthrough?

Evokes emotion using:

- camera effects
- dynamic lighting
- facial expressions
- sound effects and music

Many new tools to choreograph your desired effect.

And... action!

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Expanded Relevance

The average American adult in 2025 is forecast to spend 2 hours and 55 minutes each day watching television...

... and 0 minutes looking at floor plans.

Typical conventions of the medium are universally understood by the general population. The practice and parlance of cinematography will become a valuable skillset for creating design content that is easily understood by a wide audience.

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The Future Of Representation

Passing fad or new expectations?

- AI representation may heighten emotional response
- Physical models are still effective for the exact same reason: *experiential information is intuitive*
- Can't put AI "back in the box"
- Competitive benefits for those who adopt quickly

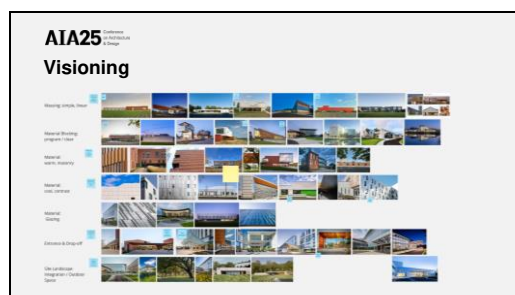
Start experimenting, we're eager to see what you can do.

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Current Landscape: So. Many. Programs.

Conversational	Text to Image	Image to Video	Speech
ChatGPT Open AI	Midjourney	Runway ML	PlayHT
Copilot Microsoft	Dall-E Open AI	Veo Google	ElevenLabs
Gemini Google	Firefly Adobe	Sora Open AI	Gemini Google
Claude	Rendair	Kling	Azure Microsoft
Perplexity	Stable Diffusion	Minimax	Music
Jasper	Leonardo	Synthesia	Suno
Replika	Runway ML	Luma	Udio




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Architecture  
Interior  
Design

### Precedent Studies



Midjourney prompt:  
imagine a contemporary large  
pharmaceutical research facility at  
dusk, there is a large open field in  
front with meandering pathways,  
a woman is greeting a group of  
children walking in the foreground  
-- ar 16:9



•Reference Image  
(image credit: Weiss/Manfredi)

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Architecture  
Interior  
Design

### Rapid Prototyping



Use sketches and reference  
images from the creative  
process to create more  
refined, AI generated  
images

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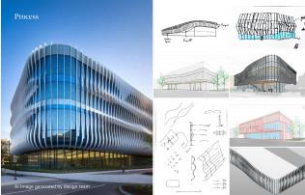
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Architecture  
Interior  
Design

### Rapid Prototyping



Use sketches and reference  
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Architectural Intelligence  
AI Design

Design Refinement



Base Render:  
Linework out of 3d model, light photoshop collage



Render AI:  
Used to increase atmospheric quality, add materiality, realistic lighting, and add non architectural detail, etc.  
Prompt: interior of hospitality space, gray terrazzo flooring, courtyard in background, fall, dramatic lighting

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Architectural Intelligence  
AI Design

Post-Production



Base Render:  
Taken out of a typical real time render engine like Enscape



Render AI:  
Used to increase atmospheric quality, add non architectural detail, etc

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Architectural Intelligence  
AI Design

Post-Production



Started with a static rendering...Runway prompt:  
camera zooms in, cars drive slowly, trees sway gently in the wind



Second key frame

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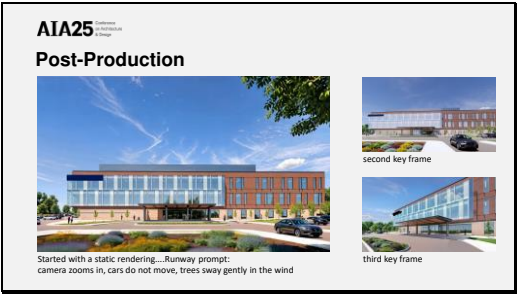
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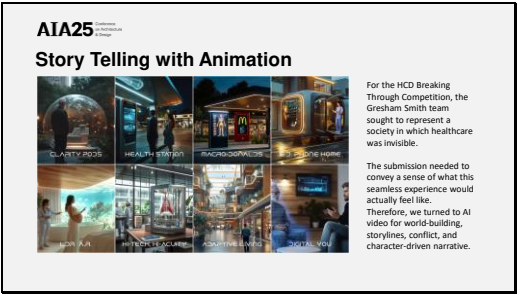
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Slide 33



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# Exploring the AI Framework

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## AIA25 Text to Image



**Programs**

- ChatGPT
- Midjourney
- DALL-E

**Prompt**

- Elderly man walking through central park for mental health break at dusk. Central park has opaque spherical glass meditation pods with people meditating inside of them. Central park also has a walking path surrounded with flowers, trees, outdoor workout equipment, and buildings in the background

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## AIA25 Image to Video



**Programs**

- Runway
- Kling
- Hailuo
- Luma
- Adobe Firefly

**Prompt**

- Reference Image
- Camera pans slowly as the man walks down the path.

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Artificial Intelligence  
Architecture & Design

### Prompt Engineering Tips

- Be descriptive; use adjectives
- Try reference images in combination with text
- Experiment with prompt length
- Experiment with parameters for AI creativity and variety
- Ask ChatGPT to write your prompt for you
- Iterate; keep what works and change what doesn't

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Artificial Intelligence  
Architecture & Design

### Prompt Engineering Methods

**Ladder**

- Build the prompt in layers starting with foundational elements and adding detail.
- Still the most reliable and recommended approach.

**Conversation**

- Write a descriptive narrative as if you are chatting with your best friend.
- Becoming more viable as LLM technology improves.

**Reverse Engineer**

- Upload a reference image and have an AI program like ChatGPT describe it.
- Change the details to create a new outcome.

**Image Blend**

- Upload two or more images and combine them for new effects.
- Eschews text prompts entirely.

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Artificial Intelligence  
Architecture & Design

### Prompt Engineering Best Practice

To organize a prompt with the Ladder Method, describe each component of the image putting the most important details first and separating discreet ideas with punctuation.

1. **Type of Image** (Photography, Pen & Ink, Watercolor, Blueprint, Anime, Oil painting)
2. **Type of Shot / Camera Lens** (Panoramic, 35mm, Aerial, Portrait, Macro, Tilt Shift)
3. **Subject & Secondary Objects** (People, Landscape, Architecture, Animals)
4. **Scenery** (NYC alleyway, Rural gas station, Reception area, Reclaimed barn wood)
5. **Atmosphere / Lighting** (Midday, Golden hour, Foggy dawn, Lit by streetlamps)
6. **Mood / Emotion** (Melancholy, Energetic, Wholesome)

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Architecture  
Illustration  
& Design

### Prompt Mechanics



**Bad Prompt:**  
A glass building in a field with a woman in the foreground



**Good Prompt:**  
A contemporary large pharmaceutical research facility at dusk, the building is mostly glass with contemporary detailing, there is a large open field in front with meandering pathways, a woman in a lab coat is walking with a group of children in the foreground

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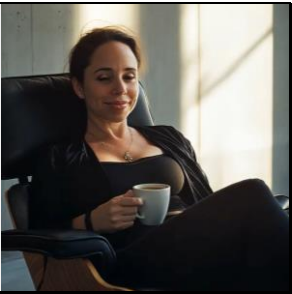
Architecture  
Illustration  
& Design

### Iteration is Key

It really is "push button, get movie."  
So, the bar is low... but not that low.

The process for improvement should be familiar to all designers: **iterate**.

- Continuously adjust and tweak to make incremental improvements.
- Save what's good and fix what's bad.
- Minimize AI "artifacts"



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## Workshop 1: Mood Board Concept Renderings

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Slide 43

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Architecture  
Interiors  
& Design

LINKS

Miro Board:  
<https://tinyurl.com/AIA25Boston>  
<https://miro.com/app/board/uXjV15v5JLM=/>  
Password: AIA25Boston!

Rendair AI: (sketch to render)  
<https://www.rendair.ai/>

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Architecture  
Interiors  
& Design

Workshop 1: Renderings from a Line Drawing

Export a Perspective Line Drawing from the model (Revit / Sketch Up)  
Add mood board and/or materials (Rendair)  
Create a quick rendering (Rendair)

Goals:  
To achieve quick iterations of perspective views that would help facilitate concept design, design directions, and general material palettes.

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AIA25

Architecture  
Interiors  
& Design



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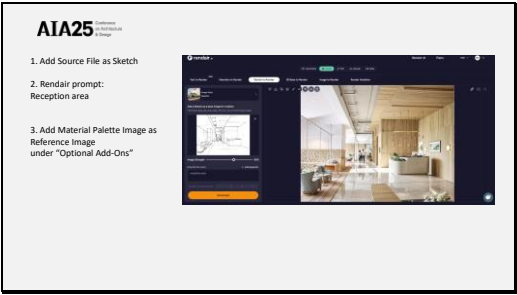
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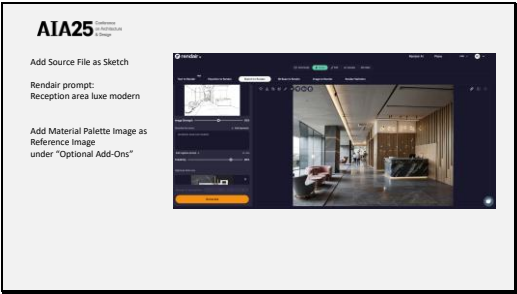
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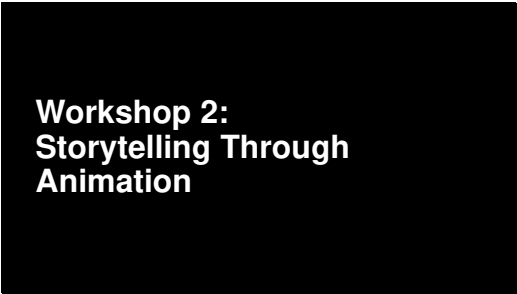
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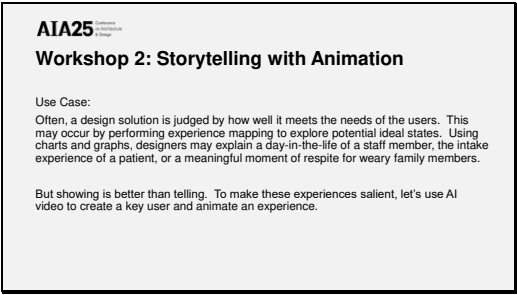
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Architecture  
Interior  
& Design

### Workshop 2: Storytelling with Animation

Process:

Create a character (Midjourney)

Place them in a scene (Midjourney / Photoshop)

Animate the scene (Runway)

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Architecture  
Interior  
& Design

### LINKS

Miro Board:

<https://tinyurl.com/AIA25Boston>

<https://miro.com/app/board/uXIV15v5JLM=/>

Password: AIA25Boston!

Midjourney: (text to image)

<https://www.midjourney.com/home>

Runway: (image to animation)

<https://runwayml.com/>

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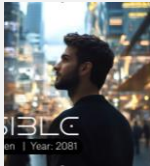

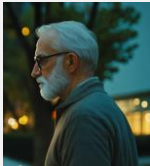
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Architecture  
Interior  
& Design

### Character-Driven Architecture



Glimpse 2: Charlotte | Year 2020 | Year: 2081

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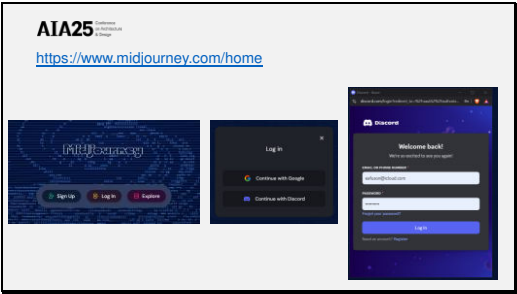
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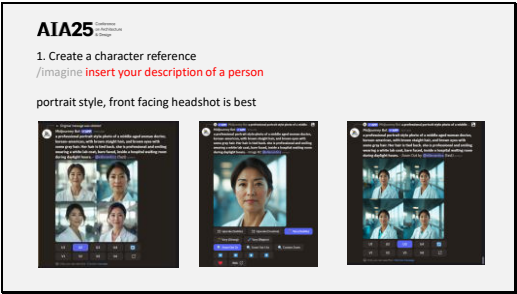
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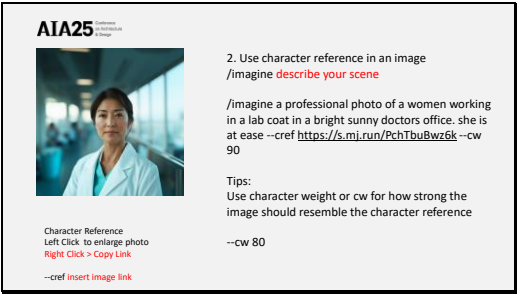
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AI Assistant

Runway: (image to animation)

<https://runwayml.com/>



Midjourney Prompt:

professional photo of a full body woman in a fancy high tech architecture modern doctors office. she is working on her laptop the view is from across the room with a wood desk, bookshelves, art on the wall, a window and a plant. It is a sunny day, cinematic, 35 mm --craf

Runway prompt:

the camera zooms out slowly. a woman in a lab coat is working on her laptop. she slowly stands up

+Reference Image + ar 16:9

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AI Assistant

Runway: (image to animation)

<https://runwayml.com/>



Midjourney prompt:

imagine a professional photo of a women in a lab coat looking out the window on a sunny day. she is at ease and focused, plants near the window, cinematic, 35mm --craf --cw90

Runway prompt:

camera zooms out and pans toward the window, woman puts on her glasses

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