

VIRTUAL CITIES

TRAINING

UNREAL ENGINE VISUALISATION & STORYTELLING

Beginners Workshop

Duration: 2 days (12-14 hours)

Audience: Architects, designers and visualisers working with Unreal Engine 5

Level: Beginner to Intermediate

Training Focus

This two-day course provides the foundation for creating meaningful digital heritage experiences that honour both the places and the people who inhabited them.

Learning Objectives

By the end of this course, participants will be able to:

- Navigate Unreal Engine confidently for heritage projects
- Reconstruct a simple historical interior space
- Apply storytelling principles through environmental design
- Use lighting and composition to create emotional engagement
- Integrate biographical narrative with spatial reconstruction
- Understand the workflow from historical research to digital experience

DAY 1 Course Schedule

Session 1: Foundations of Heritage Visualisation (10:00 AM - 12:30 AM)

10.00 – 10.30 Workshop Introduction & Unreal Engine Interface Tour

- Introduction to participants and their project goals
- Project creation and template selection
- Understanding the viewport, content browser, and world outliner
- Basic navigation controls (WASD movement, right-click rotate)
- Level editing basics: actors, transformations, and scene composition
- Lighting fundamentals for period-appropriate atmosphere

10.30 – 11.30 The Philosophy of Heritage Recreation

- The “Time Tourist” approach: connecting people to places through personal stories
- Balancing historical accuracy with narrative engagement
- Ethical considerations: representing lost buildings and vanished lives

11.30 – 12.30 Asset Preparation and Import

- Sourcing historical reference materials (archives, photographs, plans)
- Understanding asset types: static meshes, materials, textures
- Importing your first historical asset
- Organising your content browser for heritage projects
- Introduction to Quixel Megascans for period-appropriate materials

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Session 2: Building Your First Heritage Space (1.30PM – 4.45PM)

1.30 – 2.45 Architectural Reconstruction

- Working from historical floor plans and photographs
- Using BSP brushes vs. modular building pieces
- Creating walls, floors, and basic architectural features
- Scaling for historical accuracy (Victorian ceiling heights, doorway dimensions)
- Window and door placement based on historical evidence

2.45 – 3.45 Material Application and Texture Work

- Creating period-appropriate surfaces (plaster, wood, stone)
- Understanding PBR materials for realistic rendering
- Aging and weathering techniques to show temporal authenticity
- Applying wallpapers, floor coverings, and architectural details
- Colour theory for historical periods

3.45 – 4.45 Furnishing the Space

- Placing furniture and objects to tell a story
- Asset libraries for historical objects
- Creating layers of habitation (what belongings reveal about occupants)
- Spatial storytelling: object placement that suggests daily life

4.45 – 5.00 Wrap-Up & Q&A

- Open discussion and problem-solving
- Resources for continued learning

DAY 2 Course Schedule

Session 3: Storytelling Through Environment (10:00 AM - 12:30 AM)

10.00 – 10.30 Environmental Storytelling Principles

- Show, don't tell: letting the space reveal the story
- Creating narrative anchors: significant objects and spaces
- Social class and status through material culture
- Personal touches: photographs, letters, worn furniture
- Case study: Tracing one person through multiple dwellings

10.30 – 11.30 Lighting for Period and Emotion

- Natural lighting: time of day and seasonal considerations
- Period-appropriate artificial lighting (candles, gas, early electric)
- Atmospheric lighting to convey memory and nostalgia
- Using light to guide attention and create focal points
- Post-process volume for mood enhancement

11.30 – 12.30 Camera Composition and Virtual Tours

- Setting up cameras for guided experiences
- Composition principles for heritage presentation
- Creating sequencer cinematics for biographical narratives
- First-person vs. observational perspectives
- Framing spaces to emphasise human presence and absence

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Session 4: Bringing Historical Figures to Life (1:30 PM - 4:45 PM)

1.30 – 2.15 Audio Storytelling

- Recording or sourcing biographical narration
- Implementing audio in Unreal (ambient sound, voice-over, period music)
- Spatial audio for immersive historical atmosphere
- Sound design for vanished soundscapes (street noise, domestic sounds)
- Using silence effectively

2.15 – 3.15 Interactivity and Engagement

- Creating simple blueprints for interaction
- Examining objects for additional information
- Diary entries, letters, and documentary evidence as interactive elements
- Triggering narration through spatial exploration
- Balancing scholarly rigour with accessibility

3.15 – 4.15 Temporal Transitions and Multi-Location Projects

- Level streaming for multiple dwellings
- Visual transitions between time periods
- Showing the same space at different life stages
- Creating a "Time Tourist" journey structure
- Maintaining biographical coherence across locations

4.15 – 4.45 Packaging and Sharing

- Export settings for different platforms
- Creating standalone experiences
- Web-based delivery options
- Documentation and historical citation
- Next steps: building a complete biographical heritage project

4.45 – 5.00 Q&A and Course Wrap-up

- Key takeaways and best practices
- Resources for continued learning
- Building your portfolio of heritage visualisations
- Community and collaboration opportunities
- Q&A

Course Materials Available

- Sample historical floor plans and reference images
- Starter asset pack (period furniture and architectural elements)
- Template Unreal Engine project structure
- Checklist for historical accuracy
- Resource list (archives, asset libraries, tutorials)
- Case study examples from heritage reconstruction projects