

Häusliches Glück: A Case Study on Deception in a Mixed Reality Environment

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Abstract

In this chapter, we present a case study of a mixed reality environment that leverages on concepts inherited from the application of deception as demonstrated by magicians, illusionists, and other practitioners that use deception to develop compelling narratives mapped multimodality. These concepts are demonstrated in the context of a spatial cinematic art installation. From analysis of this case study, we found that these techniques can be effective tools in the creation of convincing mediated experiences. This chapter begins with an overview of the work and development processes. It then examines approaches to illusion in terms of physical devices (mechanics) and misdirection (the underpinning psychological principles of conjuring). This is followed by a detailed investigation of the work's two narrative scripts in order to offer insight into the spatial dynamics of the audience experience.

Keywords

Media art Entertainment Interactivity Mixed reality Deception Cinema Scenography Narrative environment

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In this chapter, we present a case study of a mixed reality environment that leverages on concepts inherited from the application of deception as demonstrated by magicians, illusionists, and other practitioners that use deception to develop compelling narratives mapped multimodality. These concepts are demonstrated in the context of a spatial cinematic art installation. From analysis of this case study, we found that these techniques can be effective tools in the creation of convincing mediated experiences. This chapter begins with an overview of the work and development processes. It then examines approaches to illusion in terms of physical devices (mechanics) and misdirection (the underpinning psychological principles of conjuring). This is followed by a detailed investigation of the work's two narrative scripts in order to offer insight into the spatial dynamics of the audience experience.

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Introduction

This chapter examines the immersive installation, *Häusliches Glück*, in terms of the creation of illusory presence in mixed reality installations. Drawing from the practices of stage magicians, the work employs a number of techniques to advance the idea that the virtual characters the audience encounters are physically present, rather than media simulations. These are framing context, consistency, continuity, conviction, justification, surprise, and disguise. They are derived from a range of techniques that magicians routinely employ to deceive audiences, commonly referred to under the umbrella term of “misdirection” (Lamont and Wiseman 1999).

You enter the apartment and look around. The rooms appear to still be inhabited. Artifacts from recent human activity are present everywhere: partially prepared food on the kitchen bench top, freshly washed laundry hanging out to dry, an open magazine on the sofa, a television left on in the corner. This place looks lived in. This is an exhibition space, but it feels as if you have walked into someone’s home. Where are the inhabitants? What happened here? You hear noises from a back room. As you draw closer, you notice the door is ajar but partially blocked by a cupboard from the other side. You hear voices. A shadow darts across the wall inside the room. You strain to look into the space, but can only see a fragment of the room. You continue to eavesdrop on the conversation that is taking place, and notice that the old television beside you flickers with a grainy black and white image of the room behind the cupboard. A great commotion suddenly occurs from within the room. You hear a crashing sound and, glancing across at the television, see the action unfold within the room. You realize that what you’re actually viewing on the screen corresponds with the activity you can hear within the room... A phone rings in the lounge room. Although you are compelled to stay and find out what is happening behind the blocked doorway, you momentary pull yourself away to answer the call. A flustered voice anxiously gives you directions down the phone line. The line goes dead...

Häusliches Glück is an installation in which audience members unwittingly find themselves at the center of a story unfolding around them. The work combines techniques of mixed reality, physical narrative, and cinema . Precomposed sound, video media, and mechanical devices are used in combination with the recreation of a 1950s style working class apartment in Linz, Austria, to form a series of convincing illusions. The installation offers a range of experiences to audience members drawn from a series of narratives that are presented via a television simulating a live video feed from the adjoining room. The entire apartment is augmented by sound and image technologies that create the illusion of these events occurring “live.” Drawn in by the intimate reality of the deserted apartment, visitors transcend the experience of being bystanders, becoming active participants in a layered set of narratives. The documentation of two murders in 1957, unfolding in the present moment, creates a contradiction of the senses (Fig. 1).



Fig. 1

Häusliches Glück, installation detail with audience member in a bedroom

Häusliches Glück was exhibited in a dilapidated first floor apartment in Linz from July to September 2009. The work was developed in conjunction with Time’s Up, and was presented for the 2009 European Capital of Culture as part of

the *Haus Der Geschichten* (House of Stories) project (“Haus Der Geschichten” is translated as “House of Stories” but “Geschichten” can also mean “history”). *Haus Der Geschichten* exhibited the site-specific work of various artists in an old vacant apartment building in downtown Linz throughout 2009. The central idea was to convert disused urban space into “a setting for stories: of wonderment, invention, and drama (Linz09 2009)” (Fig. 2).



Fig. 2

Häusliches Glück – Pfarrplatz 18, Linz, *Haus der Geschichten* location

The overarching narrative of the installation can be broken down into two distinct acts. The first act is set in 1957 and presented by a narrator who appears to be located in a room adjacent to the audience. The two additional characters in the story, Wilhelm (the victim) and the unnamed killer, play out their roles throughout the apartment via sound, image, and mechanical devices (Fig. 3).



Fig. 3

Häusliches Glück, video still from Act 1, Wilhelm entering the bathroom

The second act is designed to seamlessly transition from the first and is a counterpoint to the preceding drama; it is firmly placed in the present moment and the context of the exhibition space. Two exhibition attendants enter the room that the narrator previously occupied and proceed to dismantle the installation. Each act employs different framing contexts to examine deception within the mixed reality installation (Fig. 4).



Fig. 4

Häusliches Glück, video still from Act 2, Linz09 gallery attendants

The work was developed on site over 2 months leading up to the public exhibition opening. Two acts combine to an overall duration of approximately 30 min. A script for Act One was developed in the murder mystery genre and shot with three central characters. A loose script was developed for Act Two, defined around key points of drama that enabled the two actors to improvise the scene. The apartment was intricately dressed and artifacts were precisely maintained for the public presentation period so that they would match the precomposed video content. In addition to the media content, all these physical elements enabled the audience to construct their own stories based upon the artifacts they encountered and directly reinforced the predetermined narrative in Act One (Fig. 5).



Fig. 5

Häusliches Glück, entrance/kitchen before and after installation

Based on the content of the scripts, actors were shot using CCTV cameras located in the rear room (obstructed by the cupboard) and the bathroom. The rear room was subsequently emptied and used as a machine room (housing the technology) for controlling the rest of the installation space. Props from the shoot (books, furniture, paintings, etc.) are maintained within the narrow sight lines between the cupboard and door jam. However, the rest of the room is completely replaced with the controlling technology.

This is the first instance of deception in the work. The cupboard not only provides a physical space where the virtual characters can exist, it also functions to conceal the underlying technologies. Following is a discussion of these technologies (Fig. 6).

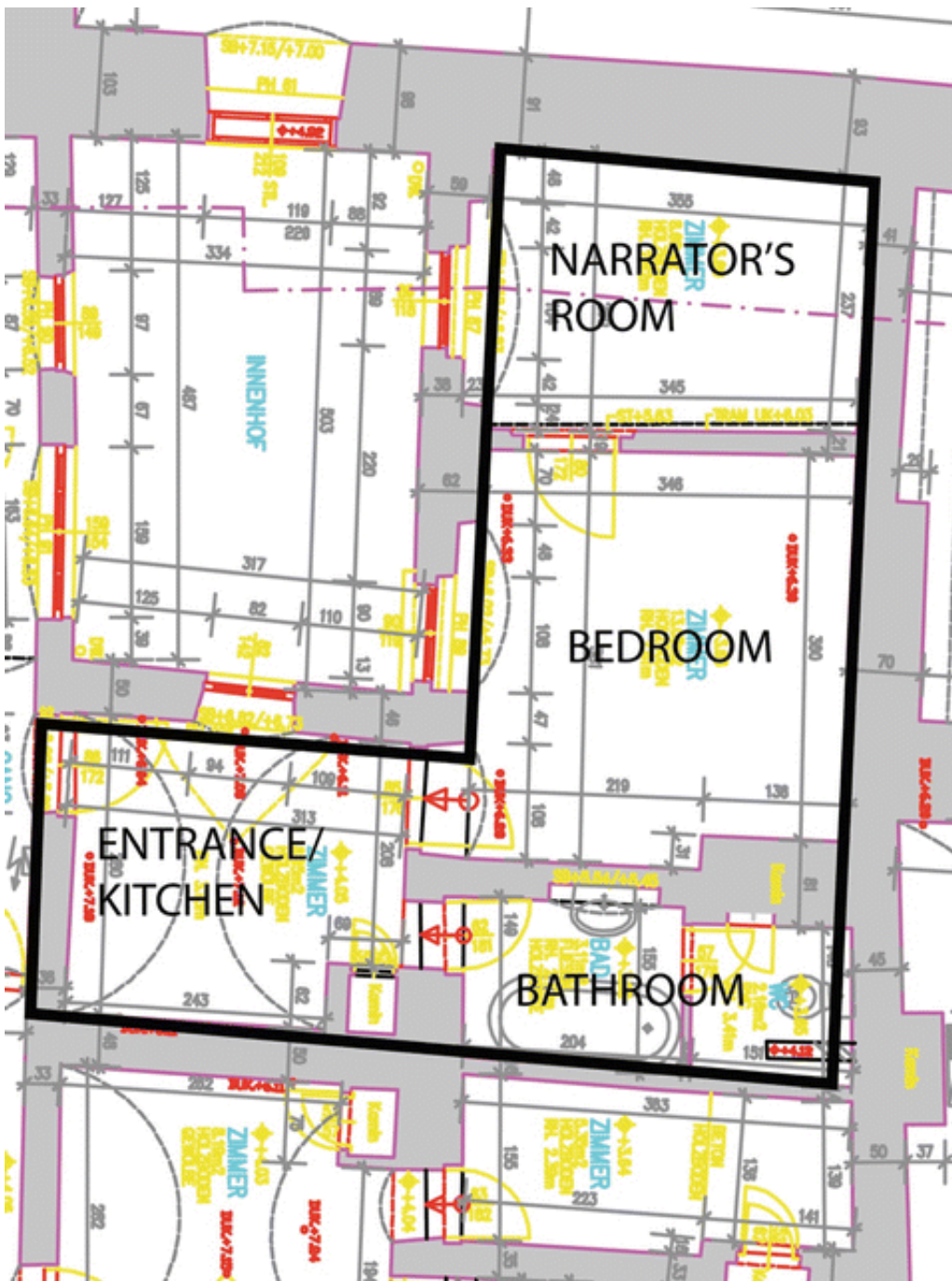


Fig. 6

Häusliches Glück, installation floor plan

Mechanics

This section examines key technologies that are used to augment the installation environment. Various technologies are used in the work to create the virtual characters and, additionally, to support the physical actions of those characters. In the first act, these technologies convey the story presented by the narrator and in the second act they support the characters' decisions and actions (i.e., the virtual characters' actions are consistent with the environmental stimuli). A range of technologies are implemented to achieve a cohesive illusion throughout the whole apartment. Put simply, everything that is described via the narrator in the story simultaneously occurs spatially in the apartment via sound, video, lighting, and mechanical devices. In such a polysensory environment, it is important that each modality works in unison because, as Anderson contends "when we perceive multi-modally, we seek the invariant properties of an event across modalities (Anderson [1996](#), p. 86)." *Häusliches Glück* not only utilizes a wide range of technologies but does so in a globally consistent manner to reinforce the illusion.

Audio

Audio is a central device for establishing illusion within the installation. While the television image presents a compelling focal point for the narrative, sound contributes to spatial awareness of virtual characters throughout the apartment.

The placement of sound within the installation is analogous to offscreen sound in cinema . However, rather than just representing action in an abstract location beyond screen space, sound emanates from points in the apartment outside the audience's sight lines, and is linked to specific physical locations within the apartment. Both these applications of sound achieve the same pronounced effect, creating an imaginary presence beyond the user's immediate visual awareness. To implement this sonic landscape, speakers are concealed at key locations in the installation where narrative activity occurs.

Following is a list of the six speakers employed throughout the apartment and their function in terms of supporting the live narrative.

11. *Radio*: The internal speaker of the radio is used to present diegetic sound for the installation. Although the device gives the impression of an old wireless unit from the turn of the century, it is in fact controlled via the software and wired to the central amplifier point in the control room. Diegetic sound is a particularly useful approach to illusion as, by its very nature, it is associated with a device that is commonly used to generate sound. Familiarity and consistency therefore reduce suspicion. In this instance, using such a device eliminates the need to disguise it, while, at the same time, supporting the framing context of the narrative.(Fig. 7)



Fig. 7

Häusliches Glück, radio

Function: Atmosphere is created through diegetic sound directly related to the narrator's story. As the narrator describes this element of the story, the radio crackles to life and music fades up and continues for the duration of Act One.

The musical accompaniment is drawn from the 1957 Eurovision song contest and creates a whimsical counterpoint to tension developed in the rest of the narrative. Musical accompaniment from the radio also provides continuity for the work as a whole by assisting in fluid transitions between the two distinct acts .

22. *Kitchen*: A speaker is concealed within the kitchen cupboard behind a range of kitchen implements.(Fig. 8)



Fig. 8

Häusliches Glück, kitchen speaker (in cupboard)

Function: This speaker is used to represent narrative elements that occur in the region of the entrance and kitchen. Sound is panned from this point to speakers located in the bathroom and bedroom to indicate movement of virtual characters when appropriate (footsteps, for example). Additionally, it is used to represent point sources of sound occurring at that specific location, such as when Wilhelm is rummaging through the drawers to find candles .

3. *Bathroom:* A speaker is concealed near the ceiling on the top of the water heater in the bathroom behind a rag and stack of old newspapers. A second speaker is concealed underneath the bathtub.(Fig. 9)



Fig. 9

Häusliches Glück, bathroom speaker (above water heater)

Function: The speaker located near the ceiling is used momentarily in the first act to represent activity from the upstairs neighbors and, therefore, is very specific in its function. The second speaker underneath the bathtub presents all other activity that occurs within the bathroom .

4. *Windows:* Speakers are concealed within each of the apartment's three external windows. Shutters and curtains are added to the interior of the window frames to conceal the devices from the audience, and similarly, curtains are used to conceal them from the outside of the apartment.(Fig. 10)



Fig. 10

Häusliches Glück, window speaker

Function: All three speakers are used to represent the world beyond the confines of the apartment. This includes environmental elements that occur during the narrative such as rain and human activity from other imagined apartments in the vicinity. For instance, the sound of neighbors arguing can be heard in the distance .

55. *Narrator's Room:* In addition to the window speaker located in the narrator's room, one additional speaker is located centrally within the room. As with all the other mechanical elements present, this is concealed (in this instance, by the cupboard).(Fig. 11)

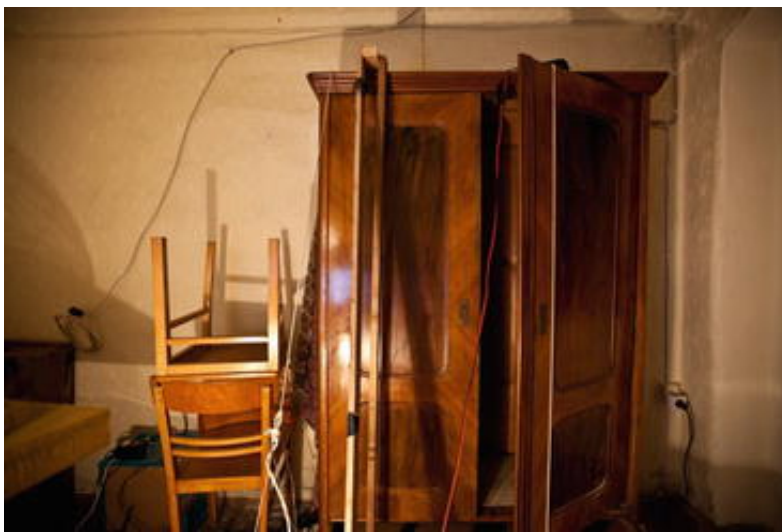


Fig. 11

Häusliches Glück, narrator speaker located above cupboard

Function: The speaker conveys sound related to any activity that occurs within the room such as the narrator's monologue, footsteps, or simulated glass smashing. As the sound is filtered via the cupboard and indirectly heard by the audience at a distance, the single speaker is capable of producing enough spatial resolution to cater for all these dramatic elements convincingly .

66. *Phone:* A phone located in the bedroom was rewired and is controlled via computer to ring and, if picked up, to voice a response.(Fig. 12)



Fig. 12

Häusliches Glück, phone in bedroom

Function: The phone is used as a plot device in Act Two. It is triggered to ring during the narrative. The virtual characters encourage the audience to assist them (i.e., by answering it). Depending on the audience's actions, the narrative goes off on one of two paths. If an audience member picks up the phone at any other time, they are presented with a dial tone, then the phone seemingly commences an auto dial and, after ringing for a short time, is answered with a randomly selected recording of a confused woman who has been woken from a deep slumber by the call. The woman, with some irritability, quickly terminates the conversation .

Video

The actors were shot with CCTV cameras located throughout the apartment, one in the rear room, one in the entrance/kitchen, and one in the bathroom. These three cameras remain as props in the installation to reinforce the illusion. When a character can be seen walking into the bathroom, for instance, the aim is that the audience interprets this action as occurring live via the camera they noticed earlier, not prerecorded.

Video technology is used to convey the illusory sense of virtual presence in several ways. The image on the television forms the central focal point of the illusion, and a range of other techniques are employed to support the image presented on screen (Fig. 13).



Fig. 13

Häusliches Glück, television in bedroom displaying “CCTV” video

The apartment contained three CCTV cameras mounted in discreet locations within the entrance, bathroom, and narrator’s room. While the camera’s presence is unassuming, there was no attempt to completely conceal them, as the audience must believe these cameras are presenting “live” video feeds to the television.

The low-resolution aesthetic of the image presented on the television is therefore interpreted as normal and consistent with audience’s expectations of the visual appearance of CCTV cameras. The presence of cameras, however, is out of character with the rest of the environment’s design, as all other artifacts are located within an earlier time period. These disparate objects innately draw attention to themselves in the context of the surrounding environment and aid in creating a false frame of reference, an expectation that the audience is viewing live events on the television, a mediated performance in the first act, and reality in the second act (Fig. 14).



Fig. 14

Häusliches Glück, camera location in kitchen (behind lamp)

The visibility of the camera is particularly important in the narrator’s room (Fig. 15), as this is one of several indicators that the characters in the room are being transmitted live to the television. The camera is visible through the narrow gap in the door that is otherwise obscured by the cupboard. The audience’s sight lines into the room are heavily controlled and very few artifacts are visible in this section of the room, further drawing attention to the device. The camera is mounted in a prominent position in the corner of the room, so when the audience peeks into the room, they see the CCTV camera, hear the character from within the room, and see the “live” image on the screen. The combination of these elements, in addition to the mechanical devices creates a palpable sense of human presence.



Fig. 15

Häusliches Glück, audience sight lines to the narrator's room (camera *top left*)

To summarize, video technologies are used in conjunction with other devices as a means to support the two narratives presented and develop the illusion of virtual characters coexisting with the audience. The audience's preconceptions concerning the technologies themselves are exploited and aid in the establishment of appropriate framing contexts required for a successful illusion.

Physical Elements

Häusliches Glück employs a range of mechanical devices activated during specific points in the narrative when it is appropriate for the actions of the virtual characters to be physically manifest within the environment. These devices are used in conjunction with the visual and aural elements to create a more cohesive illusion. The addition of mechanical elements in the work plays a significant role in the perceptual realism of the virtual characters through multimodal reinforcement, the illusory sum being greater than the parts. The mechanical elements also shift the focus from simulating agents via the abstract elements of sound and image, to events that physically occur in the environment. The actions of virtual characters therefore have tangible physical outcomes in the real world. In terms of illusion, perceptual realism will inevitably have a more pronounced and plausible effect if the object itself achieves it, rather than by simulation, no matter how sophisticated. For example, why simulate the sound of a person moving a cupboard when the audience can experience the cupboard physically move? Mechanical devices therefore assist in convincingly bringing the characters from the virtual world to cohabit real physical space with the audience. Additionally, mechanics are employed to develop the *mise-en-scène* of the installation as a whole.

Just as sound plays a crucial role in the spatial representation of the narrative, so too does lighting. Every lighting

element in the installation is directly linked to the narrative and controlled via software. Lighting fixtures in the apartment are rewired to a DMX lighting dimmer and controlled in relation to the story elements. In addition to the visible elements in the apartment such as ceiling lights and lamps, lighting is also concealed within the window shutters to simulate lightning, and within the narrator's room for specific effects.

The lighting elements are therefore experienced directly (ceiling fixtures and lamps) or indirectly (obscured lighting events occurring in the narrator's room), analogous to the way audiences perceive onscreen and offscreen elements in cinema, yet, in this instance, occurring in physical space (Fig. 16).



Fig. 16

Häusliches Glück, bedroom light, rewired to DMX controller

The same lighting control software is used during production and exhibition so that the physical and virtual content can be synchronized. The lighting sequences that occur in physical space therefore directly relate to the lighting represented on the television image (as the audience is meant to believe that the cameras portraying live events are within the same physical space).

In addition to lighting that encompasses atmospheric elements inherent in the narrative, lighting also represents actions directly related to the activity of the virtual characters. Three other lighting elements are located in the narrator's room and therefore are not directly visible to the audience. As these lighting effects are experienced emanating from the inaccessible room, they can present an accurate simulation of reality. The audience is not in a position to confirm the presence of individuals within the room controlling the lighting changes, only the results of their actions. These items include a floor lamp, a flashlight, and a lighter, the use of which will be discussed in detail within the narrative analysis section.

While lighting has a pronounced effect on the atmosphere of the installation, and therefore significantly contributes to conviction in the work, by its nature, it is still somewhat intangible, much like the characteristics of sound in the work. Although both highly effective in their own right, these devices do not have the same visceral impact that a physical object would impart.

To further enhance the influence of virtual characters in real physical space, the cupboard is called into play. It is not only used to obstruct audience access to the room but also conveys the actions of the characters by mechanical means through motorized control.

While disguise of visual elements is central to conjuring and is similarly necessary for illusion in mixed realities, disguise is also required to minimize any incongruous audio elements of the work. Just as ill-placed cables have the ability to detract from the illusion, so do unwarranted sounds. A range of motorized devices is used to augment the environment. The goal is that the audience perceives the effect of these devices, but not the device itself, for example, seeing the cupboard shake or the flashlight sweep around the room, without the artificial whirring of motors. Both

these elements are soundproofed, the servo mechanism for the flashlight via a transparent dome that transmits light yet no sound, and the cupboard motor in a sound proof box. The creaks and clunks of the cupboard moving additionally aid in masking the motor sound when activated (Figs. 17 and 18).

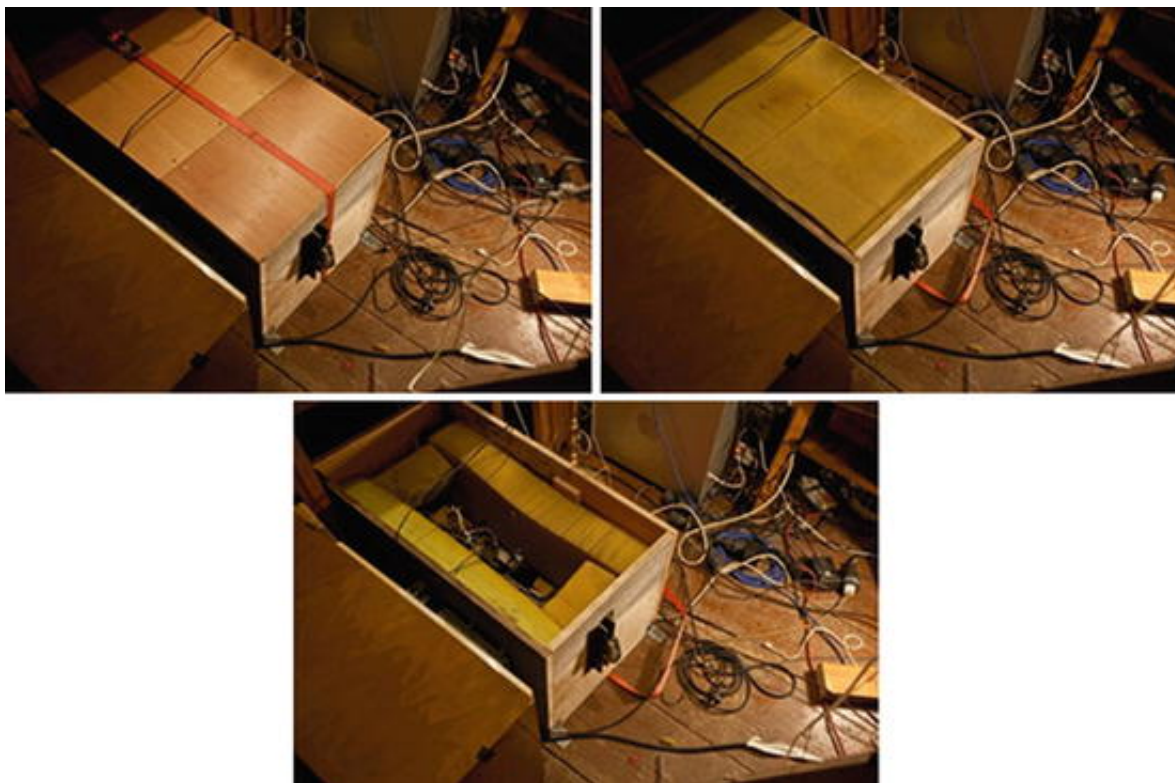


Fig. 17

Häusliches Glück, sound treatment for cupboard shaker motor



Fig. 18

Häusliches Glück, sound treatment dome for flashlight servo

Misdirection

This section examines how the psychological principles of deception employed in magic are used in the work and how these techniques contribute to the palpable sense of virtual characters occupying the installation space with the audience.

Framing Context

Appropriate framing is central to the success of an illusion. *Häusliches Glück* combines several framing contexts to achieve the desired illusory outcomes. The first is inherently part of the gallery-based experience, the subsequent two are systematically constructed via the mechanics and content to establish a deliberately ambiguous context in which the work is interpreted.

The installation was presented over a 3-month period in 2009 as part of the *Haus Der Geschichten* exhibition. In terms of audience experience, the work was therefore framed, firstly, as an artwork presented in the site-specific context of an old apartment building. Beyond this fact however, the audience was not aware of the specific nature of the work. The catalog publication and promotional material were intentionally vague and did not convey any detail as to the type or content of installation. Audiences therefore encountered the work with few preconceptions (Fig. 19).



Fig. 19

Häusliches Glück, apartment/installation entrance (left door)

Upon initially entering the work, the framing context of *Häusliches Glück* becomes even more ambiguous as the narratives consist of several discreet and shifting framing contexts that are revealed as the work evolves.

On one hand, the work is framed as a spatial cinema installation in which the narrative elements are clearly fictional (displaced in time for instance). On the other hand, as the narrative unfolds, certain aspects are framed to give the impression that the characters presented are in fact real and physically present (i.e., actors presenting the work live). This tension between the two forms of illusion (the deception of the conjuring trick and suspension of disbelief) causes the audience to continuously reframe and question their relationship to the media. Act Two, the second narrative component of the work is framed as a counterpoint to the overt drama of the first narrative. Rather than sharing the apartment with a murderer from the 1950s, the audience is again transferred to the present and encounters two gallery attendants coinhabiting the space. The banality of these characters and their actions separate them from the previous content and reframe the experience as present reality. Rather than willing the audience to suspend disbelief, the presence of these virtual characters is articulated as fact with the aim of being interpreted as such.

Consistency

Häusliches Glück, as a narrative driven work, requires consistency in characterization and the broader environment in order to create and maintain a convincing illusory space. Consistency is addressed within each scene and across the work as a whole.

In the first act, the characters' actions are consistent in a similar manner to the traits of cinematic or theatrical actors. Their motivations and actions are in accordance with the heightened sense of drama presented. In the second act, the characters are designed to display normal and appropriate behavior for gallery attendants. Consistency of character

enhances the perceptual realism of the scene and opens the possibility for the deception to occur.

In summary, the actors behave like actors in a fictional drama, and the Linz09 characters behave like gallery attendants. Although each act relies on consistency of characterization to develop the illusion, the first act does so to foster suspension of disbelief, and the second to deceive the audience.

Continuity

Continuity is the sequential flow of narrative events, in other words, the consistent arrangement of events in a logical manner. The principle of continuity in magic and cinema are equally applicable in the domain of mixed reality as a means to maintain audience interest and reduce suspicion through the removal of incongruous elements. Continuity is an integral part of illusion. If the sequence of events defy logic and confuse the audience, the next step of the story in cinema, or the performance in conjuring, will be missed. Interest is reduced when this occurs, suspension of disbelief is diminished in cinema, and deception is jeopardized in conjuring. Disruptions in continuity are specifically avoided in *Häusliches Glück* and influence the way in which the illusion is implemented.

Continuity within *Häusliches Glück* can be examined within each act and also in terms of the dynamic flow of the installation as a whole. Act One demonstrates a linear narrative that follows the fundamental principles of structure found in a magic trick or conventional cinema narrative. The story follows a path of cascading smaller climaxes until reaching the primary climax at the end. This structure keeps the audience engaged with the narrative and encourages suspension of disbelief.

In contrast, Act Two intentionally does not follow these conventions as the aim is to represent reality, and reality is often mundane, lacking the climactic dynamics of fiction. Although there are several minor dramatic climaxes in the scene to sustain audience interest, they are not overt and are in keeping with the deceptive framing context of the act. Overall continuity is maintained through the characters' actions following a logical course.

While continuity is inherent in each act, it is also employed so that the transitions between acts are fluid and logical. The installation moves seamlessly from one dramatic point to the next, looping around itself so that it can be experienced at any given point in time by an audience member. Unlike a conventional cinematic or theatrical experience, the audience is not necessarily required to experience the work between finite start and end times. Act One begins with what could be considered the default environmental state of the installation. The narrator enters and the environmental elements progressively change in accordance to the narrative. For the work to flow, these changes have to be restored in a coherent and logical manner for the work to restart from the beginning without jarring transitions that would disrupt the experience. [Methods used to achieve these transitions are discussed further in the Narrative Analysis section below].

Conviction

As illusion in the work relies heavily on narrative elements to create a compelling experience for the user, conviction is critical. On one level, the audience requires conviction to fundamentally engage with the narrative. If the narrative does not prove to be sufficiently engaging, the audience's interest will waver and the work will not achieve a high degree of presence.

For this reason, the first act is based on what could only be described as a clichéd murder mystery. The first act's overall dramatic structure and content are easy to comprehend; however, it is the spatial approach to narrative that creates a richly compelling scenario. Due to the nature of the exhibition environment, that is, nonfixed audience entry times and variable attendance durations, a simple and well-trodden story framework is appropriate as it falls within a familiar genre. The audience is therefore able to easily engage with the story at any given point of entry. Additionally, if the story is illogical or unconventional, the addition of the wide ranging mediation used to present the drama would more likely create a state of confusion, disrupting suspension of disbelief. As Nelms maintains, when the degree of conviction is high, and the audience is engaged in the dramatic elements of the presentation, they are less likely to seek out the methods of deception (Nelms 1969). Further, a high degree of presence also establishes the possibility for the

audience to perceive the simulated characters as possibly existing in the space and presenting the drama as live theater. Without the foundation of conviction, illusory deception would not be possible.

Whereas conviction is achieved predominately through narrative in the areas of cinema, theater, and literature, in this instance the story's unique presentation environment is also a contributing factor. Conviction is shaped through a wide range of other elements in the installation encompassing objects and artifacts, lighting, spatial sound, and olfactory elements. For example, unlike installations presented in relatively sterile "white cube" gallery spaces, *Häusliches Glück* takes place in an old apartment building at Pfarrplatz 18, Linz. The building itself has had over a century to develop its distinct scent. When entering the apartment, a heavy musty smell, mingling with stale tobacco greets the audience. The scent significantly contributes to the sense of immersion within the environment, even prior to the commencement of the electronically mediated elements.

Conviction in the second act serves a different purpose. The audience is not required to suspend disbelief in the drama, they need to be convinced that there was in fact *no drama*, and that the attendants were real and physically present. Conviction in this instance is based on the plausibility of the characters' correspondence to reality. Due to this, dramatic devices are not employed in the second scenario, for example, with lightning. The dramatic elements in Act One are even treated by the attendants as artificial, belonging to a fictional world, rather than the present reality that they inhabit. For example, the attendant pulling a power plug and stopping the music and rain further distances the characters from the previously artificial environment. In doing so, the attendants convey a similar perspective to the media that is also held by the audience, one of clear artifice. Their behavior effectively reveals the trickery of the prior Act. The combination of these actions, and the context in which they are presented, aims to deceive the audience into believing that the virtual characters are not virtual and indeed are physically present.

Justification

Justification is used throughout the work as a concealing device to maintain a fluid narrative and resolve the illusory deception. Characters' actions are required to be justified as in the above case of consistency, but beyond the behavior of the characters themselves, elements of the physical environment are used to justify aspects of the narrative that would otherwise diminish the illusion. In this instance, principles of magic are applied in the work to conceal deficiencies in technology. As it is uncommon for many technologies that developers encounter to behave *precisely* in the required manner, the use of the conjuring principle of justification is an excellent device in maintaining illusion in media arts.

A multifaceted example of the use of justification is evident in the cupboard that partially blocks the door to the rear room, obscuring the audience's view and inhibiting entry to the room beyond. Firstly, this obstruction offers justification for the inaccessible room, a controlled space from where many of the illusory elements occur or are controlled from. Secondly, due to the nature of the mechanics used to move the cupboard, only a close approximation of the virtual characters' actions (on screen) and the resulting movement of the cupboard are possible. Any major movement caused by a character would therefore be interpreted by the audience as unnatural, thus increasing suspicion. This mechanical issue is addressed via two different approaches, each of which is appropriate to the specific context of each Act.

The first act exploits light as a concealing device. When the killer enters the room with the narrator in the last scene, the mechanical cupboard is activated during the struggle in which the narrator is thrown into the object. It is deployed again after the narrator is murdered, when the killer attempts to gain access to the adjacent bedroom where the audience is situated by violently shaking the cupboard in an attempt to dislodge it. Preceding these two actions involving the cupboard, the killer walks through the apartment and systematically turns each light off, casting the audience – and eventually the narrator – into relative darkness. Simultaneously, the lightning simulation increases in a naturally rising progression coinciding with the increasing tension. By the end of the killer's walk, the only light visible in the apartment comes from flashes of lightning through the window shutters, a dim desk lamp in the bedroom with the audience, and a floor lamp obscured behind the cupboard in the narrator's room. This is a complex sequence of events and in the following section I will explain how each of these specific devices are used to justify the presence

and absence of other elements, thereby maintaining consistency, continuity, and conviction.

Returning to the struggle in the room, as the narrator grapples with the killer, the audience sees her on the television being swung into the floor lamp, which subsequently topples and smashes on the floor. Synchronized DMX lighting simultaneously disables this lamp, and in conjunction with the television image, sound of the breaking lamp from within the room, and sudden darkness, creates a compelling illusion that the lamp has actually been smashed. This action justifies that the only remaining light in the room occurs only during lightning flashes. When the cupboard is violently shaken, the movement of the cupboard can be physically seen and heard, but the image of the killer's actions behind the cupboard are only seen as flickering fragments on the television due to the intermittent lightning activity. The audience therefore does not perceive discrepancies in synchronization. The fragmented visual information additionally adds to the drama as it increases uncertainty of what is occurring. The systematic lighting design of this final scene is therefore employed as a concealing device. The characteristics of the lighting are justified and do not arouse suspicion as they appear consistent with the progression of the narrative.

Surprise

Surprise in magic occurs when the framing context is disrupted and an alternate reality is revealed. The element of surprise in *Häusliches Glück* is directly shaped by the installation's narrative structure, when the framing contexts shift between the two Acts. Surprise also operates indirectly at any given point of the work when the audience's perception of the virtual characters shifts either way between reality and virtuality.

In addition to surprise generated through the disruption of framing contexts, surprise also occurs as a dramatic device, primarily evident in the first act. This example to some degree is also linked to a perceived shift in framing. For instance, the audience has certain expectations that they are going to experience a prerecorded video work when they enter the apartment and first see the narrator on the television screen. They are subsequently surprised when the narrative elements such as the storm or the music spatially occur around them. Each new element builds on this surprise, as the situation the audience is presented with is unexpected and no longer conforms to media experiences they are familiar with. Although familiarity with the genre may lead them towards the overall outcome of the narrative, they are unable to predict how this will transpire within the mediated environment. An example of this is evident in the actions of the killer in the last scene. I observed audience members shocked when the cupboard violently moves as the narrator is thrown into it during the final struggle. I also saw audience members leap across the room in shock when the killer begins to furiously shake the cupboard to gain access to the bedroom where audience members are located. This event is wholly unexpected. Even though the audience may frame the incident as fiction presented by mediated characters, the element of surprise still works just as it does in a cinematic thriller, perhaps even more effectively than in a cinema space, due to the high degree of presence the installation environment is capable of producing.

Disguise

Disguise encompasses any number of techniques employed to conceal the method in order to create an effect. As illustrated above, disguise is closely linked to the psychology of justification in magic. Justification is employed in order to disguise devices via dramatic elements. Disguise is also necessary in the installation in order to conceal the wide array of technical elements (the mechanics) required to create the augmented environment. By concealing these elements, the audience experience is not clouded by elements that may indicate pretext, thereby ensuring that they instead focus on the significant factors contributing to the illusion. Conjuring, with its particular context and set of requirements, generally employs a far wider range of disguise including psychological expedients such as attention control, in which the magician may cunningly induce the spectator to focus their gaze on a specific subject to conceal a concurrent maneuver. In the case of the installation, physical disguise is appropriate and is the primary method used in concealing the mechanics of the illusion. Again these methods are closely linked to justification, as any method of disguise that is seen to be incongruous increases suspicion to the detriment of the illusion.

The audience experiences the work throughout the whole apartment, therefore the apartment as a whole and its containing elements could be interpreted as analogous to a device used by a magician to execute a trick, the mechanics

for illusion. Concealing devices encourage the suspension of disbelief by eliminating these mechanics from the audience's perception with the goal of a transparent medium. The apparent transparency of the mechanics enables the additional deceptive trickery that occurs and supports suspension of disbelief in the narrative. In all instances, disguise is employed to reduce suspicion by developing a natural and familiar environment in keeping with the framing context of the work.

Narrative Analysis

This section examines the two key narrative scripts presented in *Häusliches Glück* to provide background into the design of audience experience, timing and spatial media elements of the work, and to demonstrate how these are combined to advance the overall illusion. In contrast to the preceding general discussion, this section focuses on principles of deception that are applied to precise moments within the narratives. As discussed previously, much of the success of a magic trick is due to destabilizing an audience's expectations. *Häusliches Glück* uses both mechanical devices and dramatic elements to continuously undermine audience expectations during the work. Although their expectation is primarily that they are experiencing a fictional narrative in the form of precomposed film, the illusory devices consistently indicate otherwise that the work is being played out by actors who are physically present or, indeed, gallery attendants who cohabit the space.

Analyses of the following scripts are provided in italics, capitals define characters, dialogue is indented, and action is indicated by parenthesis. (The following script for Act One was the original shooting script developed for the work. It was subsequently translated by Andreas Mayerhofer at Time's Up to a colloquial form of Austrian German for the production of the work. The choice of language was necessary to logically fit within the framing context of the story and cater for the local audience.)

Act One

Audience members enter the building and ascend stone stairs to the first floor. They notice a dimly lit apartment with the door slightly ajar. Upon entering the old apartment, they are greeted by the musty odor of stale tobacco, old books, and furnishings. Although the apartment appears to be vacant, it eerily shows signs of being recently inhabited. The bed is unmade, cigarettes overflow from ashtrays, food is half prepared, and cloths are strewn on the floor.

A computer vision system determines the presence of the spectator and activates the narrator sequence. The narrator enters the rear room through a door and sits down in a chair.

[The narrator addresses the audience directly....]

NARRATOR

Hello, come closer, I'd like to tell you a little story... About an ordinary apartment, with an extraordinary history...

This is timed so that the audience enters the bedroom from the entrance/kitchen approximately the same time as the narrator walks across the room and sits down. The audience can see the narrator on the television screen via what appears to be CCTV and hear her voice coming from within the next room. This split between sound and image is designed to accentuate the fact that although the interior of the blocked room is visible via a camera, the sound is direct from the narrator, not presented via the television. By presenting the sound that corresponds to the visual elements on the screen emanating from the location of the perceived source, the audience is likely to acknowledge that the mediated content is in fact occurring live from the next room rather than pre recorded content. Rather than talking towards the camera, she arches her head towards the bedroom as if addressing the audience directly.

NARRATOR

The year is 1957; Bob Martin, Austria's first Eurovision contestant, had just finished in last place with *Wohin*

Kleines Pony. This was not the only tragedy to befall Austria on that fateful day...

The radio located near the front entrance crackles to life and the song “Wohin Kleines Pony” can be heard. This song continues in its entirety as background music while the story unfolds. After the song is complete, the software randomly selects other songs that were also performed during 1957 Eurovision Song Contest. The radio is employed as a device for diegetic sound to create atmosphere for the narrative. The random function of the music provides variation within the work for repeat audience visits thus destabilizes expectations.

NARRATOR

That night, our friend Wilhelm had just made it home as the storm broke, but not before he was caught in the deluge. He entered the apartment, peeled off his wet coat and momentarily slumped on the chair.

As the narrator describes the deluge, a flash of lightning can be seen though the shutters on the apartment windows, and the sound of rolling thunder and rain fade up through the speakers concealed behind each of the three windows in the apartment. The speakers are oriented so that the environmental sounds are perceived as coming directly from their source. The environmental effects suddenly shift the audience from the position of a passive observer to right in the centre of the fictional world.

The sound of Wilhelm entering can be heard in the kitchen via a speaker concealed within the cupboard. As the audience is currently located in the bedroom watching the narrator on the television, they can only hear this sound coming from behind them in the kitchen, as there are no direct sight lines to the source. The image on the television flickers and cuts from the live narrator camera to the bathroom camera. The audience sees Wilhelm enter the bathroom and hang up his umbrella, soaked and dripping from the rain. Wilhelm is seen onscreen drenched with water to reinforce the physical presence of the storm that the audience is experiencing live within the installation, thus narrowing the schism between the real and virtual.

When the video cuts between the narrator camera and bathroom camera it is prior to the entrance of Wilhelm. The audience therefore sees the bathroom empty for several seconds. This separates the work from film editing conventions that would naturally place the edit on his entrance. Although this is not perceived as a significant fact, due to the audience’s familiarity with the smooth flowing edits inherent in cinematic drama, the cut subconsciously gives the impression that they are viewing a somewhat randomly switching CCTV system, not a refined cinematic sequence. All edits within the work are aimed at being slightly off, while at the same time finding a balance of not disrupting the narrative and therefore reducing suspension of disbelief.

[Wilhelm exits the bathroom and shortly after the camera cuts back to the narrator.]

NARRATOR

It had been a long day at the Voerst and he was tired and a little drunk (the Voerst Alpina is a major steelworks operating in Linz and was chosen to make the characters’ traits plausible and context specific). Prying his body from the chair he walked a little unsteadily into the bathroom to prepare a bath.

The actions of Wilhelm can be heard shifting from the kitchen back to the bathroom via the respective speakers.

WILHEM

[Turns on tap] [A thunderclap is heard and the apartment lights flicker.] Mutters to himself cursing the weather

The audience sees Wilhelm turn on the tap in the bathroom via the television, however, also hear the sound emanating from the bathroom. When the apartment lights flicker the CCTV image on the television screen similarly flickers, dropping to black as the lights dip. This is the first instance when a physical occurrence experienced by the audience (the apartment lights) is mirrored in the virtual content (the video), thereby perceptively linking the two as occurring live.

NARRATOR

He went over to search for candles just in case the power failed as it often did during these storms. The wiring in the building was old you see, just like most of the inhabitants.

A large burst of thunder can be heard and the lights in the apartment flicker. Wilhelm can be seen exiting the bathroom off camera and is then heard again rummaging through drawers in the kitchen.

NARRATOR

Locating a candle, he returned to the bathroom.

[Wilhelm returns to bathroom and prepares for shaving with straight razor]

During this process Wilhelm begins whistling along with the music playing on the radio (“Wohin Klines Pony”). This again provides a correlation between the actions of the virtual character to the music emanating from an object physically present for the purpose of encouraging the audience to infer that both aspects are occurring in the physical environment. Simultaneous to Wilhelm’s audio activity, the audience sees the narrator on the television getting out of her seat and rummaging through the room looking for candles. After opening some drawers in the room, she walks over to the cupboard that is blocking the door and opens it. As she does so, the cupboard moves ever so slightly as the motor control is activated. The audience sees this action on the television, hears her movement within the room, and sees the cupboard physically shudder. The narrator’s action opening the cupboard is so incidental and matter-of-fact that no weight is placed on this occurrence. The dramatic impact, however, is significant. This is the first instance where the actions of a virtual character physically influence the environment (unlike the apartment lights previously in which a physical event impacted upon the media, that is, virtual to real as opposed to real to virtual.) Though subtle, there is a shift in the perceived framing context at this moment. The audience, initially comfortable with the fictional narrative played out as cinema, potentially questions their interpretation of the events. It is in fact the subtlety of this action that makes it effective. The result is unsettling as the audience, while watching the television in front of them, notices the movement in the left periphery of their vision. If this movement is perceived, the device shifts the framing context from an immersive cinematic work to a live theatrical production.

NARRATOR

The neighbors were arguing about something trivial yet again, they always argued, it was not the fact that they argued that irked him, but the trivial nature of their conflicts. The whole building was like a giant buzzing hive and there rarely seemed to be any peace. [Sound of neighbors arguing/breaking glass]

WILHELM

[Yelling from bathroom] Shut up, it’s late for Christ’s sake.

[Neighbors fall quiet for a moment, then respond with an antagonistic remark.]

The speaker concealed in the window cavity plays the distant sound of an argument. The sound is equalized and the volume adjusted so that it appears to come from an apartment across the atrium outside. The argument is between a man and woman. The dialog and sound effects for the argument and their subsequent response to Wilhelm’s statement are randomized in software. Each argument presented is therefore unique in the instance of repeat audience visits. This scene is an example of the benefit of spatial storytelling and is particularly effective. The narrator recounts the tale from her room, Wilhelm can simultaneously be heard yelling from the bathroom on the other side of the apartment while the sound of the arguing couple is perceived in the distance, beyond the confines of the apartment.

WILHELM

[Mutters to himself about neighbors]

NARRATOR

Looking in the mirror, he noticed some mustard left over from the wurst he consumed on the way home, wiping it off [Wilhelm wipes off mustard with finger and then eats it] he began to prepare for a shave; never a good idea after the consumption of alcohol, but this was the kind of idiocy that Wilhelm was accustomed to, and he was managing rather well under the circumstances. "Could mustard actually be used for shaving cream?" he wondered as he worked the lather onto his face. He was so consumed by the shaving process, and the lingering taste of Estragon, that he did not notice the figure enter through the door [Killer enters through the door from the storm and is wearing a soaking raincoat]. Standing in the doorway water pooled at his feet from the storm, his clothes soaked.

[Narrator pauses after describing the murderer]

NARRATOR

I'm sorry... one moment, [clears throat, gets up from the chair and gets a glass of water resting on top of the chest of drawers. Sips water, sits back down and continues...] [Sound of footsteps]. Yes, Wilhelm never noticed him enter...

The pause is added for dramatic tension. It disrupts the flow of the fictional narrative while maintaining the progression of the "live" narrative. When the narrator ceases to recount the story, she directly addresses the audience by apologizing. By engaging with the audience, the narrator places herself in the present, unlike the other characters displaced in time, bringing both parties together and encouraging presence via social interaction. Wilhelm is seen on the television oblivious to the presence of the killer that the audience can hear walking across the entrance room towards the bathroom.

[Moments later the killer enters bathroom, Wilhelm turns from mirror still with shaving cream on face.]

WILHELM

What?

[The two struggle and the killer wraps a rope around Wilhelm's neck. As they continue to grapple they orient themselves facing away from the camera. The killer can be seen grabbing Wilhelm's hand holding the razor. As they both spin back around towards the camera Wilhelm's throat is cut. He screams and falls limply to the floor]

The killer and Wilhelm are heard engaged in a violent struggle in the bathroom until a scream is heard and the audience hears a body drop.

NARRATOR

As you can see, the situation for our friend Wilhelm was not good, not good at all. The blade had expertly sliced through his carotid artery. Blood began to pool around his motionless body, as it lay twisted on the floor, his life rapidly draining away.

The narrator again addresses the audience with this statement (as she does with the inviting statement at the beginning of the story and the prior apology).

[Thumping on roof coming from above the bathroom. Muffled sounds, "keep it quiet down there"]

A speaker concealed near the ceiling in the bathroom plays equalized audio to give the impression that the thumping and dialogue are coming from apartment above. The killer is seen via the television looking up, responding to the source of the sound. The actions of the character on screen are directly linked to the sound physically emanating from a different room. This links the behavior of what may be perceived as a virtual character (mediated via the

television) to events that occur in real physical space.

NARRATOR

The rain continued to sheet down outside...the storm's ferocity seemingly mirroring the violence of the attack as if they were intertwined in some form of twisted symbiosis...

The simulated storm outside increases in intensity, lightning and thunder are more frequent as is the resulting erratic power in the building, often submerging the audience in darkness as the lights flicker and at times, drop out entirely for short moments during the simulated brownouts.

[Narrator pauses for a few seconds]

[Sound of neighbors arguing again in distance]

During the pause in narration, another randomized argument can be heard in the distance, this time somewhat masked and abstracted by the increased sound of the storm.

NARRATOR

First he turns the bathroom light off.

[Narrator pauses for a few seconds]

[Light off]

[Footsteps]

NARRATOR

Then the kitchen.

[Narrator pauses for a few seconds]

[Light off]

NARRATOR

She hears him crossing the room.

[Sound of shuffling footsteps.]

[Narrator pauses for a few seconds]

NARRATOR

Then the lounge room.

[Light off]

As the killer moves through the apartment, his footsteps shift from the bathroom, to the entrance, and then to the bedroom. Each time the narrator describes the killer turn off a light, the audience simultaneously hears a switch flick from that particular room and the ceiling light is turned off via DMX casting the area into darkness. The combination of the sound of the killer's movement and the physical enactment of turning the lights off provide a comprehensive sense of the virtual presence.

At this point the audience is situated in a predominantly dark apartment; the only light source is a dim desk lamp in the bedroom and diffused light coming from a floor lamp in the narrator's room. Momentary bursts of lightning

brightly illuminate the apartment.

[Suddenly the footsteps cease. The only sounds that can be heard are the radio and the never-ending rain. After a pause there is a sudden shuffle towards the front door]

NARRATOR

She sat waiting and waiting ... and waiting, silent ... in the dark, frozen in terror, unable to move.

[Narrator fidgets with paper and mutters something to herself]

The narrator at this moment realizes the outcome of the story and becomes somewhat unsettled. After recounting the tale of a murder that occurred in the 1950s, she suddenly realizes that the script that she is reading now refers to herself as the protagonist. The events are no longer displaced in time but have transitioned into the present. This shift occurs, beginning with the statement, "She sat waiting and waiting..." Her statement effectively reflects precisely what the audience is doing at that moment in time also, waiting in a dark apartment, uncertain of what will occur. It reaffirms that the narrator coexists with the audience in the present, which to some extent is now both "in the story together" and indicates that any further events that transpire in the narrative are now occurring "live."

NARRATOR

She never heard him enter because of the commotion of the storm.

[Loud thunderclap and lightning. The fake door opens and the killer emerges]

[Shadow of killer on wall from lamp flash during lightning]

NARRATOR:

The killer slowly approaches from behind, his shadow dancing around the walls in the flickering light, she feels his presence as he draws closer, [Shudders] his hands reaching towards her trembling body. He grasps around her neck, she gasps, rising in an attempt to pry his crushing grip from her neck. They struggle, he throws her towards the wall, the lamp smashes and they are thrown into inky darkness,

As the killer approaches, the narrator can be seen describing her imminent demise. Although the scene is charged with tension due to the developing drama and the environmental mechanics, it is simultaneously whimsical and absurd as a counterpoint to the violence. That is, she is narrating her own death as it is occurring live, still desperately clutching the manuscript in an attempt to continue reading. The struggle is visible on the television and a cacophony can be heard from inside the room. When the narrator crashes through the floor lamp and it topples, a sound effect is played to simulate a breaking globe, and the DMX lighting control disables the lamp. The effect from outside the room is that the audience hears a crash, the final light source emanating from the room vanishes, and the simulated CCTV camera feed to the television drops to black giving the impression that there is not enough light available to capture an image. The only time the audience can see activity occurring in the room via the television is when a series of lightning flashes occur. This is used as a concealing device for the following actions.

NARRATOR:

She sees his leering face in the flickering light from the window [Lightning Flash]. She tries to scream, but can't, her body recoiling in horror. Her mind feels hazy. The enveloping darkness is interspersed by flashes of bright light [Lightning]. She feels her life slipping away but desperately struggles [Crash into cupboard]. She never even felt the razor effortlessly sli...

In this sequence, the two characters continue to struggle and the narrator is hurled into the cupboard. During the collision, the cupboard violently rattles to simulate the impact of her body. As discussed in the section "Justification," the sparse visual information created by the lightning flashes was used to conceal the synchronized movement of

the cupboard to the corresponding television image. Unlike the previous movement of the cupboard when the narrator opens the door looking for candles, this mechanical movement is substantial and impossible to miss, the entire cupboard crashes into the doorframe. The story abruptly ends when the narrator's throat is cut by the razor mid sentence. This concluded the tale and the presence of the narrator in the experience. Her death is only witnessed in fleeting video fragments on the television during lightning flashes. The result is her lifeless body sprawled on the floor. The remaining inhabitants of the apartment are now the killer and the audience. Due to the prevailing darkness in the space and substantial lack of video information on the television (the screen is predominantly black at this point, momentary images flash up only during sporadic lightning activity), the audience becomes more reliant on sound or physical cues within the room to determine the location of the killer.

[Lighting and rain continues and we see the killer at the cupboard during a lighting flash and it shakes]

A sudden flurry of lightning reveals on the television that the killer is behind the cupboard. He is heard straining to move the cupboard in an attempt to gain access to the room in which the audience is located and the cupboard heaves back and forth. Simulated sounds of the strenuous activity undertaken by the killer combine with the actual creaks and groans of the cupboard physically shaking. The moment can simultaneously be viewed on the television to the right of the audience, the commotion behind the cupboard seemingly revealed via the camera during lightning flashes.

[The killer exits, the apartment is still, the sound of rain continues to sheet down outside the windows and the narrator's body can be seen in a contorted position on the floor during occasional lightning flashes, punctuated by thunder.]

While the killer attempts to get unsettling close to the audience, he fails and can be seen departing through the rear door during the lightning flashes. The time that elapses until the commencement of the second Act (approximately 90 s) leaves the audience waiting in relative darkness in the apartment with a degree of uncertainty as to whether the murderer may appear again or if indeed it is the end of the work as a whole. Act Two demonstrates this is not the case; however, the events are most certainly not what they expect.

Act Two

As the narrative in Act One is set in 1957, the audience is clearly aware that the characters occupying the environment are not ghostly apparitions from the past, and indeed that the overtly dramatic scenario presented to them has no connection to their current reality. The narrative aspect of the work is undoubtedly interpreted as an intricate fictional simulation. There is, however, the possibility of a sense that the characters in this story may have been played by actors that cohabit the space. For example, the narrator might be considered an actor playing the role of a narrator within an environment that has clearly fictitious elements such as a radio operating of its own accord.

As a counterpoint to this fictional scenario, a second narrative sequence was developed that fluidly occurs after the first. The aim of this Act is to firmly root the virtual characters in the present (in a similar manner to *The Black Box Sessions*). Not only do these subsequent characters exist in the present, they are portrayed as plausible in the reframed context of the act. The audience therefore initially experiences a wholly fictional narrative based partly upon suspension of disbelief and is then presented by a factual situation founded solely on deception. Additionally, this sequence is a means to achieve a smooth and elegant transition for resetting the environment to the default state, ready for the commencement of the first Act.

Two actors under direction from Alex Davies and Andreas Mayerhofer improvised the following sequence, therefore, no script is available. Discussion of this sequence is via descriptive analysis of the video content presented in the work.

When the first Act ends, all the lights in the apartment remain out due to the storm. The audience waits in near darkness – other than a diffused glow of the bedside lamp and the occasional flickering of lightning through the shutters. All that can be heard is the constant patter of rain and the radio still playing in the kitchen. The television is black after the lamp was smashed during the struggle (giving the impression that the “live” CCTV camera is unable

to capture an image in the darkness). The apartment is eerily still after the dramatic climax of the previous narrative.

In the darkness, sounds of movement are heard from the narrator's room: could this be the actors leaving?

After 30 s the audience hears the sound of a door opening emanating from within the narrator's room. A crash is heard – followed by cursing – as an individual bumps into an object in the darkness. The sounds of a lighter flicking are also heard. A small wavering pinpoint of light is visible in the blackness of the television image and faint flickering light is seen emanating from behind the cupboard in the room. The lighter goes out; the room is cast into darkness again. Then it reappears. The audience continues to hear shuffling and then the actor calls out to her colleague to come and assist with a flashlight. Moments later another individual is heard entering the room and a flashlight is seen sweeping around on the television screen and from within the physical space of the room, darting across the walls. After a brief moment of activity, the second character locates a switch. The whole apartment is cast into light as power is apparently restored to its natural state. Simultaneously, the television flickers and an image appears of two women standing in the room, both dressed in Linz09 Culture Capital t-shirts. The women begin to dismantle the installation, seemingly under instruction from the management, moving artifacts and props while generally engaged in small talk. During the course of this activity, the attendants show signs of awareness of the audience's presence in the adjacent room; however, they continue about their business.

The attendants continue to talk amongst themselves while working when a mobile phone rings and is answered by Attendant 1. The audience hears half the phone conversation (the attendant's perspective) of what appears to be a misunderstanding about the exhibition de-install. As this discussion proceeds, the character states that her phone is running out of batteries, and indeed, moments later it cuts out. While this conversation is occurring, the other attendant continues to work and can be seen on the television unplugging a power cable that runs along the ground behind the cupboard. The very instant the cable is unplugged the television flickers to black and the sound of the radio and rain cease. The only sound that can be heard in the apartment now is directly related to the perceived actions of the characters in the rear room, no longer the broader simulated environment. The act of unplugging the cable ends the remaining legacy media elements from the previous Act. It is the final transition in framing context from a split fictional environment, dislocated in time, to one centered, in fact, purely in the present.

The attendants discuss their predicament when suddenly the phone located in the bedroom near the audience begins to ring. The audience hears one of the attendants approach the cupboard and attempt to move it in order to access the phone, making the cupboard rattle. She calls out to the audience to assist her and answer the phone as she is unable to gain access, despite heavy shaking to dislodge the cupboard. If the audience answers the phone, they are presented with a fast talking anxious manager insisting that the attendants must call him back immediately. He promptly hangs up before the audience has the chance to engage in conversation – as the line goes dead after the flurry of spoken directions. The swiftness of this exchange and the context it is presented in removes any need for an intelligent response from the software to audience input. It is a decisive end to the interactive element, designed to sustain the illusion. The previously mentioned narrative element of the second attendant disconnecting the power (and therefore the television) additionally played the role of a concealing device in the work. As the television still appears to be disconnected during the phone sequence, the audience is unable to perceive any synchronization issues when the attendant shakes the cupboard as they can't simultaneously see the action occur on the television (working in a similar manner to the use of lightning as a device to conceal discrepancies in Act One however appropriate to the new framing context).

Realizing an error has occurred, the two attendants proceed to roughly move all the props in the room to their original location, restore power to the television (and therefore CCTV image), and hastily depart. Moments later the first attendant reenters and turns the light off again in the narrator's room (as it had been when they arrived). This was executed to justify the following audio transition that was required to occur in darkness while at the same time appearing plausible. That is, the attendant wished to return the room to the way they found it as closely as possible due to the misunderstanding.

This completes the second Act. Following this Act is a further 30-s transition through the use of sound in which it

appears that people are moving objects around in the darkness of the narrator's room. This was employed for continuity, so that when the first Act commences again, if audience members are still present from the previous Act, the contents of the room do not appear to jump between the two scenarios. Darkness was used as a means of disguise so that the audience could not see what was actually occurring within the room (nothing) and were therefore reliant on sound cues and their imagination to construct these events. Through this process the installation is returned to its ready state for the commencement of Act One.

Conclusion

Häusliches Glück demonstrates the use of conjuring principles as a means of developing the illusion of perceptively real characters in mixed realities. This in turn propels the narrative. The work achieves this through the tight integration of a wide range of media to create an immersive polysensory environment. *Häusliches Glück* demonstrates how narratives in mixed reality can enhance conviction in the very same manner as magicians employ showmanship, both with the common goal of advancing an illusion. It further demonstrates how multimodal experiences increase presence and cumulatively aid in deception.

The installation illustrates the principle that multiple framing contexts can be integrated into a single cohesive work, thereby dynamically shifting the nature of the illusion and audience experience. On one level of the illusion, the audience is encouraged to suspend disbelief through the cinematic fictional narrative they find themselves immersed in. On another level, the environmental elements indicate that humans physically present in the space are playing out the very same story. The audience is finally presented with the last layer of deception occurring in Act Two whereby they are transported again to the present and encounter a relatively familiar everyday situation.

All these permutations of illusion are achieved through the same methods used to execute conjuring tricks: the unified integration of mechanics and showmanship. Unlike magic, however, where the audience is expecting to be deceived, mixed realities have the potential to occur within a wider range of framing contexts. The audience in these circumstances may not expect deception to transpire. Even when a particular aspect of the deception fails (as it often does in these circumstances), each new illusory element adds to the uncertainty and makes the audience continually question what is in fact real or virtual within their surroundings. It is perhaps this uncertainty above all that creates tension and drives audience interest and ongoing engagement with the work.

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