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# Playing in the Holodeck

## What Don't We Know About the Enterprise's Ultimate Rec-Room?

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"The more complex the mind," observed Captain Kirk in Theodore Sturgeon's script for *Shore Leave*, "the greater the need for the simplicity of play." The crew of *Star Trek: The Next Generation* is surrounded by devices and problems even more advanced than those experienced by Kirk and Company. Their 'toys' are therefore more complex than those available in Kirk's era. Captain Picard's updated *U.S.S. Enterprise* contains a remarkable device called the *Holodeck*, which can be considered the ultimate role-playing game.

Essentially, the Holodeck is a large room equipped with circuitry that can simulate any environment and populate it with people, animals, or any creature that can be imagined. Such a device is convenient for the writers of *ST:TNG*. Countless situations can be created using the holodeck; and there is always the possibility that adventures conjured up within it will not proceed exactly as planned. Another type of dramatic conflict involving the holodeck results from the device's ability to comprise the series' continuity through frequent or ill use.

In *The Big Goodbye*, resident holodeck expert Wesley Crusher attempts to cancel the holodeck's current program while Captain Picard and others (including Wesley's mother) are inside. "If this isn't done correctly," he announces, "the program could abort, and everyone inside could vanish."

In the story, Picard seeks relaxation by programming the holodeck to recreate the 20th century San Francisco of his favorite fiction detective, a Sam Spade clone who moves in circles resembling the Warner Brothers props department during the filming of *The Maltese Falcon*. Everything goes according to the 'script' until the Enterprise historian is shot by the Peter Lorre-type. The holodeck's program has apparently been rendered deadly by an alien energy probe directed at the Enterprise — but no matter what the explanation, these aspects of the tale raise some interesting questions. First, how does the holodeck work, and, second, given its complexity and capabilities, what is its full potential?

The function of the holodeck in the series' continuity has been outlined in at least one memo circulated among the series' production crew. The document states that in the era of *The Next Generation*, Federation scientists have invented a micro-miniature device that influences electromagnetic fields. The holodeck's walls are covered with these incredibly small wonders which are tied in to the starship's computer system. Once the computer has been programmed to create (or recreate) a specific environment, each of these millions of devices is given instructions that result in three-dimensional shapes and textures which humans perceive as anything desired. The result is even more satisfying than the "feelies" mentioned in Aldous Huxley's *Brave New World*, since you're not required to *imagine* that you're moving through your illusion. Using the

holodeck, you would actually be walking, but the floor of your environment would be passing beneath you like a treadmill.

How did this remarkable device come about? During the early pre-production of *Star Trek — The Motion Picture*, one staff artist designed a pair of goggles that could be used as a portable recreational facility: it would have replaced reality with whatever surroundings were desired.

The ability to manufacture realistic illusions and project them directly into a person's mind existed within the *Star Trek* continuity as early as *The Cage*, the first *Star Trek* pilot. The *Talosians* had evolved that ability, yet had otherwise vegetated. *The Cage* explored the illusion-casting ability of the *Talosians* and the potential fate of other races learning the same skills.

When the budget of the original *Star Trek* series made it necessary to use unaired footage of *The Cage*, creator/producer/writer Gene Roddenberry conceived a framing device the result of in *The Menagerie*. As part of that new story, the Federation High Command and Starfleet declared Talos IV off-limits because of the potential danger to any civilization learning their peculiar talents.

Suppose that as the years passed, this ban was lifted and diplomatic relations were established with the *Talosians*. Since it was mentioned that their talent *could* be learned, perhaps the principles behind their capabilities were mastered so that their ultra-realistic illusions could be duplicated using scientific devices. This could well have been the source of holodeck technology.

Whatever the inspiration behind the holodeck, there is still the disturbing matter of Wesley's warning that "...the program could abort and everyone inside could vanish." The *Next Generation* memo concerning the holodeck dismisses the possibility that the technology can harm the people who use it. Since the props and surroundings are manufactured, they can be adjusted instantly to compensate for any emergency, so if someone fell into a lake, for example, the water would disappear before he could drown. If he fell off a cliff, he would find his landing cushioned. It is the user's *surroundings* that are being influenced, rather than the structure of the user himself. There seems to be an inconsistency here, but this might also be explained using another staple of Federation technology: the transporter.

Perhaps the transporter is the principle behind the holodeck. The device would function by converting the user from matter into energy in such a way that he would still be able to perceive himself and his surroundings (or those manufactured by the holodeck). The trouble with *this* bizarre explanation is that it doesn't agree with the official explanation of how the holodeck works. This is too bad; it might have justified Wesley's statement.

*The Big Goodbye* also raises other disturbing issues. One character synthesized by the holodeck asks Picard, "When you're gone, will this world still exist? Will my wife and kids still be waiting for me at home?" Picard, in all honesty, responds that he does not know. As the unfortunate character watches the Captain return to his own reality of the Enterprise, the 'exit' closes, and we watch as the environment within the holodeck fades to black. What can be the ethics of a culture that uses a holodeck even though ignorant of its workings and internal reality? Are there ethical questions here? It would seem so, as the manufactured entities at least have enough awareness to question their fate.

"I think, therefore I am" would seem to apply here, and if it does, then we're talking about an endless variety of animated and intelligent beings, entitled to the same rights humans claim for themselves. Viewed in this perspective, the holodeck appears to be manufacturing, simulating, or otherwise gathering *life* and then uncreating it on demand! It is entirely possible, of course, that what appears to be intelligent life-forms within the holodeck only function as such because of their programming. If this is the case, then we're dealing with little more than marionettes — more sophisticated to be sure, but with life-processes simulated by the machine. *The Big Goodbye* confuses this question even further. When simulacrum of "The Fat Man" and "Joe Cairo" learn that their world is only a pocket of unreality existing within the structure of the U.S.S. Enterprise, they attempt to leave through the holodeck exit. They actually step out into the corridor before they vanish, gradually fading away from the feet up, suggesting Alka-Seltzer tablets dissolving in a glass of water. As they disappear they protest, clearly aware of what's happening to them *even though they are no longer inside the holodeck and no one is near who could benefit from the fiction of their existence.*

In the same episode, Captain Picard initially enters old San Francisco while wearing his uniform. He steps out of the illusion back into the Enterprise, determined to wear the proper clothing — which he *is* before he re-enters the old-time environment. This brings up the question of the holodeck's limitations in yet another area. Under ordinary circumstances, without any alien influences or power-sources, it appears that the holodeck would not be capable of influencing one's person — which presents inconsistencies. If you can walk on simulated ground, feel simulated objects and interact with simulated

people, why isn't it possible to *seem* to wear simulated clothing? After all, the standard Starfleet uniforms are supposedly manufactured by the Enterprise computers from recycled materials. Why can't the holodeck mechanisms do the same, then return the discarded clothes to nothingness when they're no longer needed — or if they do not really exist, just stop the illusion? In *Shore Leave* we visited a planet-sized equivalent of the holodeck — an entire world functioning as the ultimate Disneyland. The thoughts of visitors were received, recorded, monitored, and evaluated. Vast manufacturing centers within the planet were immediately programmed to construct and animate whatever the 'customer' envisioned.

We were told very little about the principles involved in the amusement park planet, but there was one striking similarity between that environment and the holodeck as it behaved in *The Big Goodbye*: it was possible for someone to be hurt or killed. In *Shore Leave*, we see crew member Angela Martine cut down by bullets from a strafing aircraft. We also apparently see Dr. McCoy bite the big one — run through by the lance of the dread Black Knight. McCoy later reappears none the worse for wear and explains that he was taken below ground and 'repaired' by the same machines that manufactured everything else on the planet. We do not see Angela again when everyone is lined up for the end of the episode, but we assume she has also been 'repaired'. One thing about the amusement park planet is certain: it has better reconstruction facilities than the holodeck (or the Enterprise), since the historian would have died had his injuries been beyond the ability of Dr. Crusher to repair.

Only one thing about the holodeck is clear to me: I can't explain how it works because...I'm a *writer*, dammit, not a physicist!

