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Further Reading:
This magazine couldn’t have been prepared without reference to The STAR TREK DEEP SPACE NINE Technical Manual by Herman Zimmerman, Rick Sternbach and Doug Drexler. Special thanks are due to Rick Sternbach for going through his files to find his early production ‘sketches’ and to Ira Steven Behr, for many hours spent on the phone years ago.
Originally known as Terok Nor, Deep Space Nine was constructed in 2351, during the Cardassian occupation of Bajor. The station had a diameter of 1,451.82 meters and was 969.26 metres tall. It consisted of 98 levels divided into 19 sections linked by access conduits made of two metre thick duranium, a substance impenetrable to most known scanning techniques. An almost identical sister station, Empok Nor, was located in the Trivas system.

Under the Cardassians, Terok Nor’s major function was as an ore processing plant, fed by the strip mining of Bajor’s rich deposits of uridium. Prisoner and conscript labour was employed to refine the ore for shipment to Cardassia Prime.

Businesses were allowed to open on an area known as the Promenade, most notably a bar owned and run by the Ferengi Quark who also provided entertainment in the form of holosuites and dabo tables.

As well as a labour camp, the station served as an administrative base for Bajor. In 2362, the station was under the administration of the prefect of Bajor, Gul Dukat. Cardassian personnel initially provided security for the station, but when the Bajoran workforce proved to be less than cooperative, Dukat made the decision to turn the job over to Odo, a shape shifting life form, who had been found as an infant in space near Bajor. By 2369, the Cardassian occupation of Bajor
Deponcted the U.S.S. in inadequate and Starfleet station's defenses were became clear that the with the Dominion, it made first contact after the Federation rariety in that it was a true small vessel was a.”

It was to move the station from its orbit around Bajor and Deep Space Nine, the station was handed over to a position near the wormhole. The station was home to around 300 permanent Bajoran liaison officer, Major Kira Nerys, a veteran of the Bajoran resistance. One of Sisko’s first acts was to establish a more secure environment.

Before the handover, the station was stripped of most of its systems and restored to its former glory. The station was eventually equipped with 48 phaser arrays, 39 phaser emitters, 48 torpedo launchers and over 5,000 photon torpedoes, together with several deflector shields. The station was home to around 300 permanent residents and 50 Starfleet personnel although it was large enough to accommodate over 7,000 people. On any given day, the station had to cope with between 10 and 300 visitors stopping off on their way through the wormhole, Bajor or beyond.

DS9 was run from the Operations Centre at the top of this central section of the station. A multilevel facility, it housed the primary interface for the main computer; life support systems and tactical controls. It was served by two turbolifts as well as a transporter platform.

Life on the station revolved around the promenade, which ran around the inner core below Ops. This busy area provided an ever-expanding range of shops and businesses and of course Quark’s Bar. It was also home to security, which was still headed up by Odo, and the station’s infirmary, run by Doctor Julian Bashir. Accommodation for both permanent residents and visitors was provided in the inner ring.

By 2374, the station was once again in the hands of the Cardassians who had joined the Dominion. The Federation and the Klingon Empire formed an alliance to fight the threat. The Dominion responded by attacking DS9, forcing Sisko and his staff to abandon the station. During the occupation, the Dominion established an administrative base on the station rather than on Bajor.

Sisko brought together a combined force of Federation and Klingon ships, as well as entitling hearp from the aliens who lived in the wormhole known as the Prophets. After a brutal battle the Dominion fled leaving the station once more in the control of the Federation. After the end of the Dominion War, Sisko left to join with the Prophets. Bajor joined the Federation and Kira Nerys, who was promoted to the rank of Colonel, assumed command of the station, where she had once been little more than a slave.

When Starfleet took control of Deep Space Nine, they put Commander Ben Sisko in charge. He made contact with the Prophets – powerful aliens who lived in the wormhole and existed outside linear time. The Bajorans worshipped the Prophets as a form of god, and one Sisko as their emissary. This made him an incredibly influential figure on Bajor, who was mentioned in prophecy.
Key locations

When a visiting ship arrived at Deep Space Nine, it was allocated a docking berth by the command crew in Ops. If necessary, the ship would also be assigned a cargo bay and living quarters, though many visitors continued to use the living facilities on their own vessels. Cargo could be offloaded using a network of specially designed turbolifts while the crew walked on through the airlocks. Once aboard the station, most visitors headed straight to the Promenade, which covered three levels in the upper core. By this point, the ever-vigilant Odo would have cast his eye over them, checking for any criminal records and assessing whether they posed any threat to the station. If necessary, visitors could have their medical needs attended to in the infirmary. They could relax in Quark's Bar – which provided drink, food, gambling and holosuites, or make use of the free replimat or several different restaurants, including a Klingon one. Bajorans could visit the temple to pray. While commercial travellers could visit the assay office. The station even had a tailor's shop, operated by the Cardassian Garak.
Deep Space Nine had more than 20 docking ports or landing pads and could accommodate every kind of vessel from tiny shuttles to massive starships.

**Data Feed**

The Cardassians built the station to act as an ore processing plant and the massive vertical pylons originally contained refining equipment. This role was abandoned when the Federation took over and large parts of the pylons were repurposed as cargo bays.

**Deep Space Nine**

Although DS9 was not designed for spaceflight, it is capable of making relatively short journeys. When it was moved to the wormhole, O'Brien reduced the station's mass by using the deflectors to generate a subspace field. He then used the thrusters to provide propulsion like engines.

**Power**

The station's power is provided by a fusion generator located at the bottom of the central core. It contains six independent fusion reaction chambers that use superheated plasma made by fusing deuterium atoms.

**Movement**

Although DS9 was not designed for spaceflight, it is capable of making relatively short journeys. When it was moved to the wormhole, O'Brien reduced the station's mass by using the deflectors to generate a subspace field. He then used the thrusters to provide propulsion like engines.

**Communication**

The antennae on top of Ops provide the station with a full suite of communications. An experimental subspace relay even allows access to pass through the wormhole to the distant Gamma Quadrant.
DESIGNING

DEEP SPACE NINE

The brief for STAR TREK’s new spacestation was simple - something alien and unforgettable...

When it comes to developing a look for a new Federation starship, designers don’t have to look any further than Matt Jefferies’ iconic design for the original Starship Enterprise. But, when it came to designing the first spacestation that would take centre stage in a series, there was no blueprint. For production designer, Herman Zimmerman it was a case of starting completely from scratch. On the positive side he was given a three month lead time, which according to Zimmerman, was an unusually generous gift. “In terms of creative noodling, those three months were enormously important,” says Zimmerman. “It gave us the space and opportunity to toss ideas around, to try out things that didn’t work and come up with things that did.” That extra time proved to be especially helpful as, at the start of the process, producers Rick Berman and Michael Piller’s only instructions were that the station had been built thousands of years ago and was possibly Bajoran in structure. “We also had the idea that over time the station might have been occupied by a number of separate disparate cultures,” recalls Zimmerman. “And that, each one might have added something to the structure so that the technology from one part of the station would be of various ages and, not necessarily interfacing one with the other. That would have then resulted in this sense of confusion. Kind of like what happened with the Tower of Babel.”

Senior Illustrator Rick Sternbach and Scenic Art Supervisor Mike Okuda produced a series of sketches, together with CGI shapes that could be built in their computers. 3D modelling software was also used to create shapes and rotate them in order to see if they would provide the strange alien look that would work for DS9. According to Okuda, this freewheeling approach led to some very unusual designs. “Up until this point, nothing had been established about Bajoran architecture or culture. I did a whole bunch of really weird things but the one that went the furthest was a version that had actually started out inspired by an airport terminal. Then it became more complicated and started looking like an oil derrick. Initially, Berman, Piller and Zimmerman liked the idea and
Sternbach went as far as building a very detailed study model. But when Berman was having second thoughts.

“Right from the word go he was keen for a show that wouldn’t have to compete with STAR TREK: THE NEXT GENERATION, it was important that nothing about the design elements came across as derivative of either the original series,” Zimmerman explains. “He instinctively felt that the oil derrick concept just wasn’t slick enough, unusual enough, alien enough and most importantly original enough to fit with the idea that he had for this station in the middle of nowhere.”

The team was told to forget the Tower of Babel concept as well as the idea that various cultures had been responsible for the eventual look of the station. Now the station had been built by the Cardassians and the design would need to reflect that. Unfortunately up to that point, only one Cardassian ship - the Gulor class - had appeared on screen so, as well as coming up with a completely new design which would work for an alien space station, the team also had to establish a look for the Cardassian technology.

But although the brief differed from the original, Sternbach points out not all the work they had done was wasted. “We had a number of key elements that had been in place from the very beginning of the design process. Even the oil rig platform had something of a central core because we knew we had to have an ops module or tower of some sort, as well as a promenade.” Not only that but the new brief allowed them to revisit ideas that had previously been rejected.

“Rick Berman stressed,” Zimmerman recalls, “that one of the things he wanted was that no matter where you were, if you could see your television set at all, from a corner in the kitchen, from a chair in the sitting room, looking up from your homework in bed, when you saw that design you’d immediately think Deep Space Nine and nothing else. That actually was a pretty tall order – to design something that is immediately recognizable for what it is and couldn’t be mistaken for anything else.”

The central core was developed relatively early on and appears in several different designs.

It led them to consider an earlier concept, which in Zimmerman’s words had been: “a series of nested sort of hoop structures, or ring structures and went back to that concept of a round wheel sort of station.” A gyroscope shape was added as a basic form and then vaguely connected to the shape of an atom with all the electrons running around the nucleus. Finally a Mercedes logo was added into the mix. “The Mercedes emblem was quite important design wise as in an episode of STAR TREK: NEXT GENERATION it had been established that Cardassians like things in threes. So we have three concentric rings – they’re not on the same level, but joined by three arms that join the three rings together and then we have three weapons towers/docking rings that are off the final ring, the cargo ring.” The final breakthrough happened Zimmerman suggested breaking the vertical ring, turning it into pylons, then because Cardassians work in three they were moved around and a third pylon was added. The exterior details also owed a great debt to Joe Hodges, who worked on the interior sets, elements of which were incorporated into the final design.

With the structure of the station now in place, it was left to concept artist Ricardo Delgado to add surface detail. But establishing a Cardassian style was far from easy. Delgado turned to the Cardassian costumes created by Bob Blackman for THE NEXT GROUND as well as Michael Westmore’s make up for inspiration.

“Ricardo came up with some wonderful enough that I would never have thought of, probably most designers wouldn’t have thought of,” recalls Zimmerman. “He depressed the surface of the basic shape of things and put all the equipment slightly below. So instead of having a station that was slick, sleek and beautiful on the outside, or a station that was all tank parts and machinery, looking like an oil derrick or a refinery, you have a combination of the two, where it’s a slick exterior from the distance and the closer you get the more texture is laid upon it by the surface and the depressions in which all the machinery is located. It’s an honest kind of design which fits the Cardassian profile and not something that 20th-century Earth people would have thought up.”

Meanwhile Sternbach was working out exactly what systems the new station would need and finding locations for weapons, docking ports, engines, RCS thrusters and so on. The end result was exactly what Berman and Piller had asked for - an unmistakably alien spacestation that was instantly recognizable. A design that became the focal point of the series for the next seven years giving the series with a unique identity, something that was very different to anything that had gone before. But still unmistakably STAR TREK.
For the first time a *STAR TREK* series was set on a space station, calling for one of the most detailed models ever built for TV...

**Deep Space Nine** was always intended to be a strange, alien-looking place that was as different to Federation stations as possible. It was also meant to be far larger than any Federation starship. Together the combination of its alien shape and unusual size presented the VFX team with some "interesting" challenges.

The model itself was built by Tony Meininger’s Brazil Fabrications and was six-feet across. Of course this wasn’t in scale with the shooting model of the *Enterprise-D*, but compromises had to be made. As VFX producer Rob Legato put it, the station had to be small enough to fit in the motion control studio and to move a camera around it, but large enough to have the detail they needed. As a result, whenever ships were shown docked at the station they were actually filmed separately and then scaled before they were combined with the footage of the station.

Even at six-feet across, there were some shots that the model couldn’t be used for. In particular, the shots that involved the runabouts landing and taking off. There were two problems: first that bizarre, alien shape meant that the camera couldn’t get in close enough, and second, beautiful as it was, the model wasn’t detailed enough to stand up to such an extreme closeup.

The solution was to make another model of the station, where a large section of the core and the outer pylons were missing. This allowed the camera to get into the right place, but didn’t solve the problem of the detail. To do that the team needed two more models: the runabout and a section of the habitat ring that was in scale with it. The shot of a runabout flying away from the station might look simple but is actually incredibly complicated. First the runabout was filmed on it’s small section of the station. This was then matted into the partial version of the station to create the shot where it flies away, before finally switching to another shot that combined footage of the runabout with the regular version of the model.

Years later, extra sections that showed the station’s enhanced weaponry, were built and filmed in the same way for the massive battle with the Klingons in ‘The Way of the Warrior’.

The six-foot studio model continued to be used throughout all seven years of the series even when the other ships had been replaced with CG versions. The one exception was the final shot of the series that showed Kira and Jake looking out of the window before the camera pulled right back until the station became a tiny speck of light. Accomplishing this with a practical model would have caused enormous problems. Fortunately, VFX company Station X had already built a CG version of the station, which they had been looking for an opportunity to use. The shot was their only contribution to the series, and the only time the CG **DS9** made an appearance.

The main studio model was sold at auction in 2006, fetching $132,000.
When its creators first thought about *Deep Space Nine*, the O’Briens weren’t the only characters they planned to bring over from *Star Trek: The Next Generation*. In early drafts of the story, the first officer would have been the Bajoran Ro Laren who had made regular guest appearances on TNG. When Michelle Forbes, who played Ro, passed on the role, the character was reinvented as Kira Nerys, who, unlike Ro, was not a member of Starfleet.

Avery Brooks normally shaves his head, but the producers asked him to grow his hair to play Sisko because Captain Picard was bald and they didn’t want it to seem like a theme. The decision was reversed during the show’s fourth season.

To *Star Trek* fans, Marc Alaimo is best known for playing Gul Dukat, but he also played the very first Cardassian to appear on screen - Gul Macet - who appeared in the TNG episode, ‘The Wounded’, two years before the first episode of DS9.

Deep Space Nine became an increasingly dangerous place as the series progressed. At the beginning it was a frontier outpost that could barely fight off the Cardassians on its own. That changed at the beginning of the fourth season when the Klingons invaded and the station showed off some new teeth revealing it was now heavily armed.

‘What You Leave Behind’
The series ends with Kira taking command of the station and staring out of the window. Bajor is now part of the Federation, and the series’ mission is complete.

According to "Star Trek: Deep Space Nine: Key Appearances on Screen" by Herbert Zimmerman, Rick Sternbach, Ricardo Delgado.

**KEY APPEARANCES**

- **“Emissary”**
  For the first, and only, time a *Star Trek* series was set on a space station rather than a Starship. When Sisko arrives at Deep Space Nine it is a wreck - a dark and unwelcoming place that has little in common with the comfortable ships we are used to – but it will become his home for the next seven years.

- **“The Way of the Warrior”**
  Deep Space Nine became an increasingly dangerous place as the series progressed. At the beginning it was a frontier outpost that could barely fight off the Cardassians on its own. That changed at the beginning of the fourth season when the Klingons invaded and the station showed off some new teeth revealing it was now heavily armed.

- **“What You Leave Behind”**
  The series ends with Kira taking command of the station and staring out of the window. Bajor is now part of the Federation, and the series’ mission is complete.

**FEATURED TV SERIES:** *Star Trek: Deep Space Nine*

- **FIRST APPEARANCE:** "Emissary"
- **MOVIE APPEARANCES:** None
- **FINAL APPEARANCE:** "What You Leave Behind"

**DESIGNED BY:** Herman Zimmerman, Rick Sternbach, Ricardo Delgado

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