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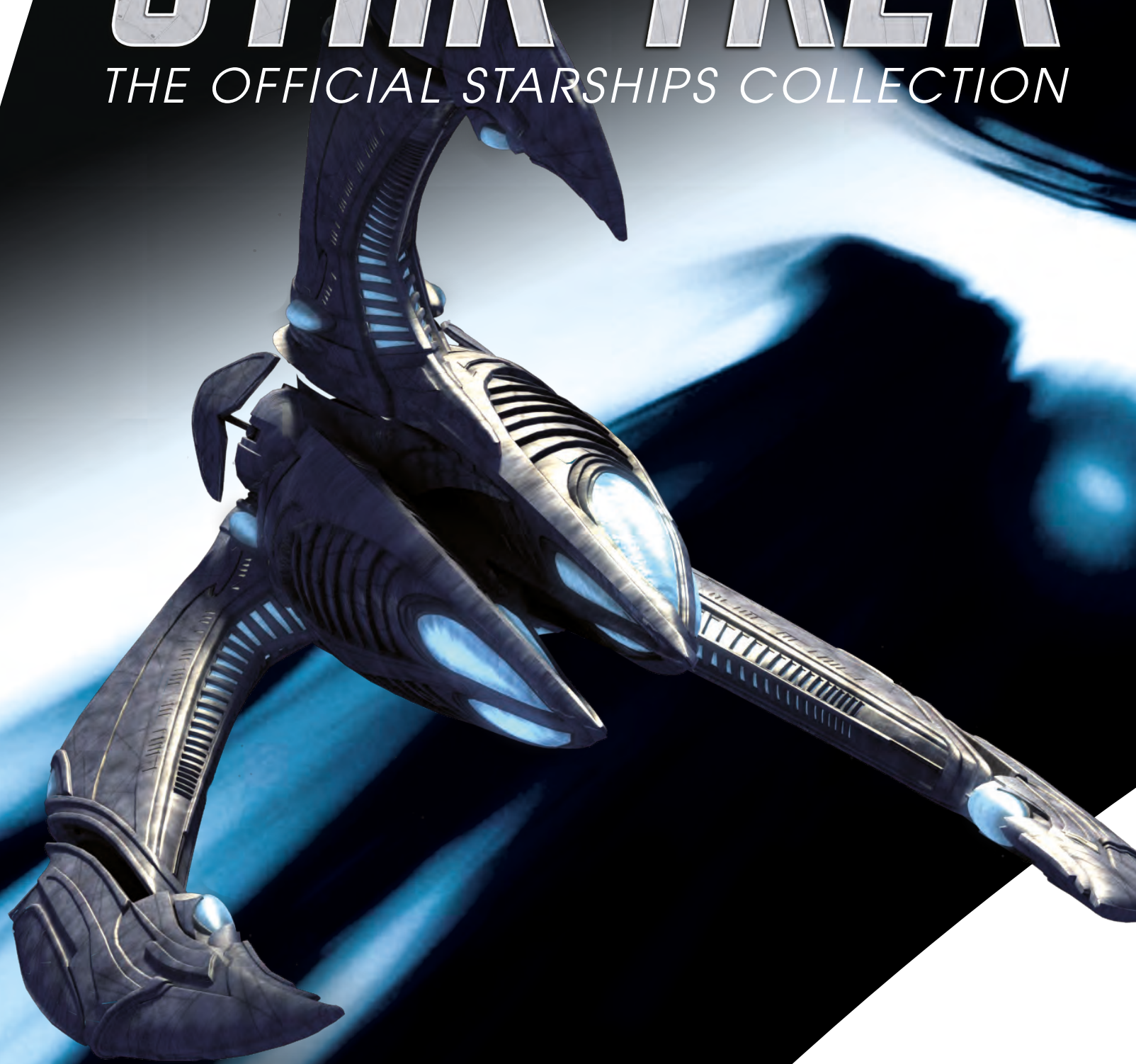
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STAR TREK™

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**XINDI INSECTOID
WARSHIP**

XINDI INSECTOID

LAUNCHED: 22nd C

LENGTH: 150 METERS

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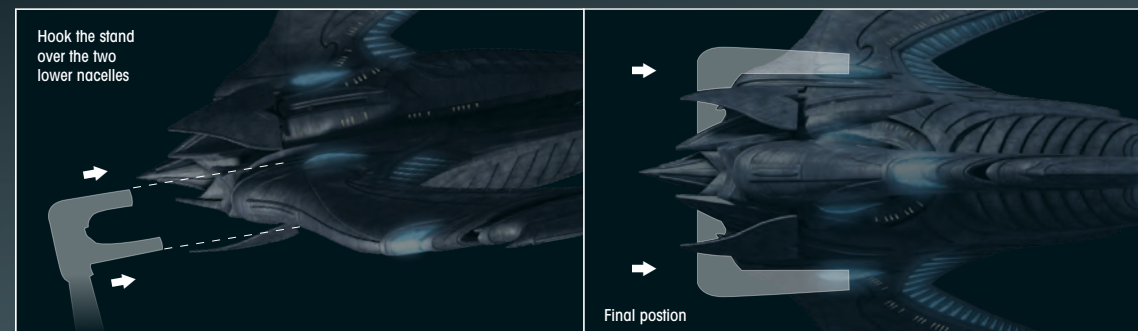
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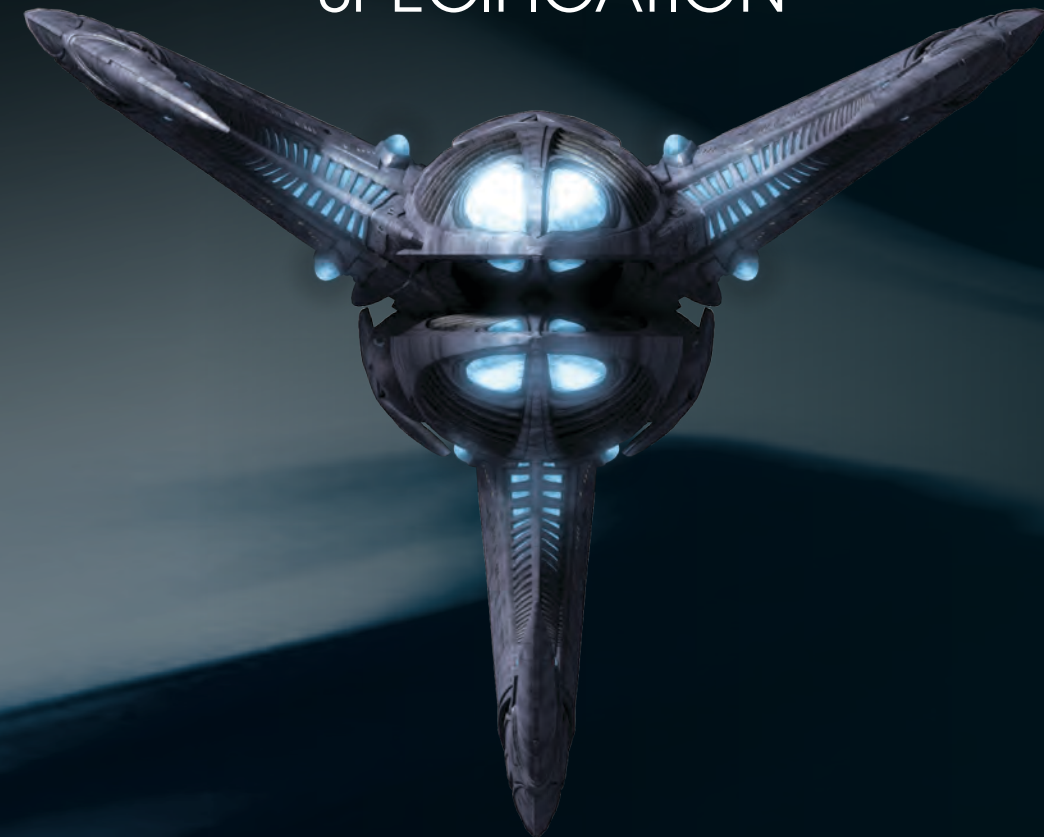
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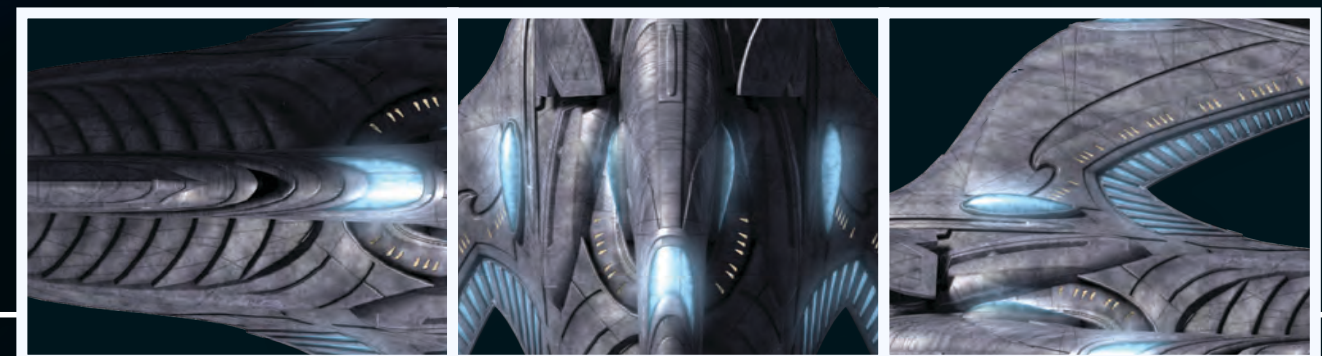


XINDI INSECTOID WARSHIP

SPECIFICATION



REGISTRY:	N/A
SPECIES:	XINDI INSECTOID
ORIGIN:	THE EXPANSE
LENGTH:	150 METERS
PROPULSION:	SUBSPACE VORTEX DRIVE IMPULSE ENGINES
WEAPONRY:	PARTICLE CANNONS TORPEDOES



XINDI INSECTOID
WARSHIP

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The Xindi, who posed such a threat to Earth in the 22nd century, were made up of five distinct species, each of which operated their own design of warp-capable starships. The Insectoids are one of the more aggressive Xindi species and their 22nd-century ships were heavily armed with particle cannons and torpedoes.

The warships, which often operated in groups of three, were the largest and most powerful of their vessels and were more powerful than the Arboreal or Primate vessels, although they were outgunned by the Aquatics.

FAST AND DANGEROUS

These heavily-armored craft were highly maneuverable and were capable of entering a planet's atmosphere. At sublight speeds they used conventional impulse engines. The impulse manifolds resulted in one of the ship's greatest tactical weaknesses. Since they weren't particularly well shielded, they presented a vulnerable point that could be targeted.

Like all Xindi vessels, the Insectoid warship didn't use conventional warp engines. Instead it relied on an advanced drive that could open a vortex in subspace by firing a modified deflector pulse. Once inside the vortex, which was effectively a subspace corridor that closely resembled a

XINDI INSECTOID WARSHIP

The Insectoids operated some of the toughest and most heavily armed ships in the Xindi fleet.

DATA FEED

Xindi Insectoid ships maintained an oxygen-nitrogen atmosphere that could support human life. However, the interior of their ships was warmer and more humid than most humans found comfortable.



◀ Five Xindi Insectoid warships were part of the group that escorted the Xindi 'planet-killer' weapon to Earth. The first four were lost in battle with *Enterprise* and the Xindi Primates, Arboreals and Aquatics.



▶ While en route to Azati Prime, the crew of the *Enterprise* NX-01 found a crashed Xindi Insectoid ship that appeared to have been damaged by leaving a subspace vortex.

▶▶ The only 'survivors' of the crash were a series of egg sacs that were in the most protected part of the ship. The adult crew had sacrificed themselves by diverting all the remaining power to supporting their unborn young.



◀ The Xindi Insectoids were closely allied with the Reptilians and their ships often operated together. In one timeline they tracked down the only surviving humans in an effort to wipe them from history.

▶ The warship carried a smaller shuttle-sized attack ship in its hangar that could be operated by a single crewman. These ships were extremely tough and heavily armed.



▲ Xindi Insectoid warships were extremely tough and highly maneuverable, but they did have a weakness - a small impulse manifold on the underside of the ship was inadequately shielded and, if it was targeted, the ship could be disabled.

transwarp corridor, the Xindi could travel at speeds in excess of Warp 9. However, the vortex corridors were extremely unstable and the Insectoid ships could use them to travel only a few light years before they collapsed. Exiting the vortices could be dangerous and it wasn't unheard of for a ship's engines to be damaged as the vortex collapsed. That damage could even be serious enough to disable the ship, killing the crew.

Insectoid vessels could be puzzling to other species - they were designed to be operated by creatures with compound eyes and the Insectoids' distinctive abdomens. The command systems were distributed around the ship rather than being on a conventional bridge. However, there was an area that was used to transmit messages and a conventional armory.

The ship's main power was supplied by a matter-antimatter reactor, which tied into every system, including life support. Enormous amounts of power were routed to the structural integrity fields, meaning the ship was heavily resistant to enemy weapons fire and could operate in almost any kind of atmosphere.

PRECIOUS OFFSPRING

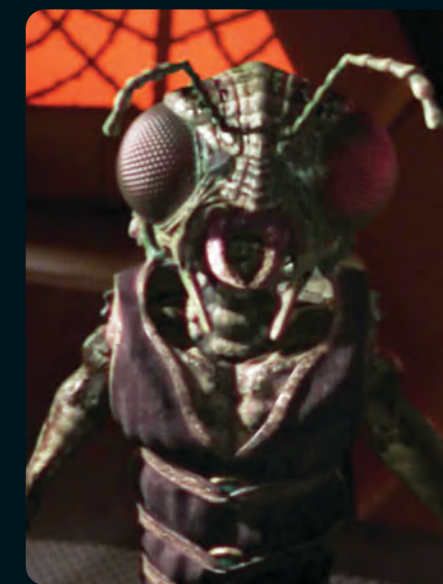
The interiors of the ship maintained an oxygen-nitrogen atmosphere, with relatively low light levels and high humidity. The Insectoids were asexual and had a relatively short lifespan - they lived for approximately 12 years. Perhaps as a result, it was important for the Insectoids to be able to reproduce wherever they were and their warships carried a large heavily armored chamber for

depositing egg sacs. The Insectoids regarded these 'hatcheries' as the most important part of the ship. They had reinforced bulkheads and backup power and life-support systems that operated even if the rest of the ship was disabled. If the ship crashed or was damaged, they would divert all available power and life support to the hatchery.

The hatchery was designed so that the Insectoids could implant their eggs into the walls and ceiling. And once they were in place, it was impossible to move them until the egg hatched. If threatened, the egg sacs could spray a neurochemical that caused their attacker to 'reverse imprint' on the eggs. The chemicals activated the affected person's parental instincts, and they placed the survival of the eggs above anything else to the point of obsession.

DATA FEED

A mysterious transdimensional race manipulated the Xindi into believing that Earth would destroy them. At first, all the Xindi believed what they were told, but over time some of the Xindi species started to have doubts. The Insectoids were among the most aggressive and were ready to dismiss the evidence that the humans presented to the Xindi council. However, as a devastating Earth weapon approached Earth, even the Insectoids voiced doubts, leading their Reptilian allies to turn on them.



**DATA FEED**

While Nausicaan fighters were a menace to interstellar commercial vessels in the 22nd century, it would appear that by the 24th century their ships no longer posed a significant

threat. Captain Picard did, however, recall that during his time as a cadet at a training outpost, a group of Nausicaans had caused trouble nearby, striking from a base in an asteroid belt.

**VULNERABLE SHIELDS**

The shields on a Nausicaan fighter operated on a particular modulation frequency. If weapons were matched to this frequency, they would pass straight through the shields, causing severe damage.

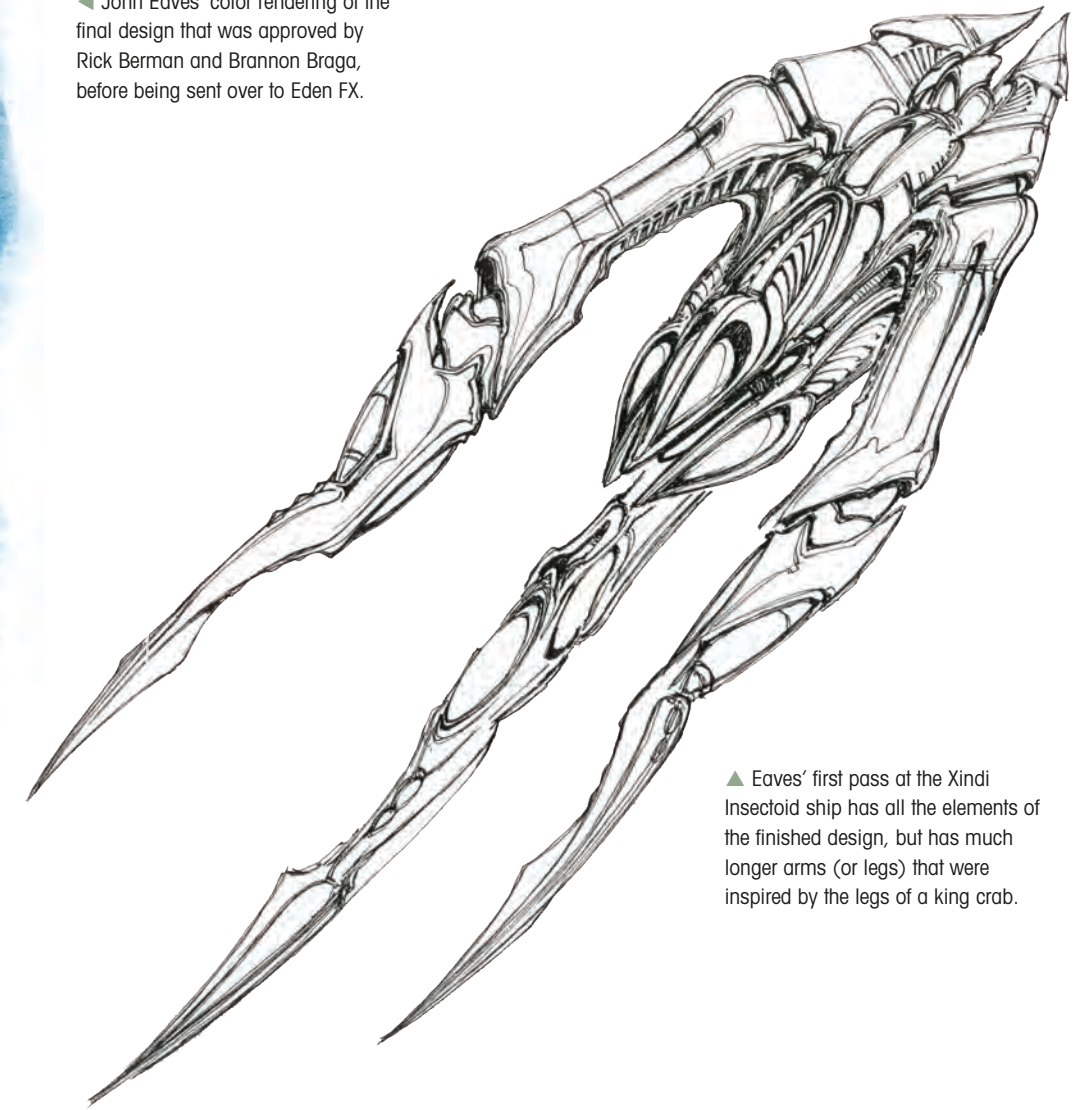
SECOND CONTACT

Captain Archer and Commander Tucker encountered another Nausicaan in 2152 while on board an Enolian transport ship bound for a penal colony.

BELATED APPEARANCE

Nausicaans were first mentioned in 'Samaritan Snare,' a second season episode of *STAR TREK: THE NEXT GENERATION*. In this show Captain Picard told Wesley Crusher the story of how he was stabbed through the heart by Nausicaans. They were not seen, however, until the sixth season episode 'Tapestry.'

◀ John Eaves' color rendering of the final design that was approved by Rick Berman and Brannon Braga, before being sent over to Eden FX.



▲ Eaves' first pass at the Xindi Insectoid ship has all the elements of the finished design, but has much longer arms (or legs) that were inspired by the legs of a king crab.

As *STAR TREK: ENTERPRISE* entered its third season, the producers wanted to push things in a new direction. For the first time ever, *STAR TREK* would experiment with a series-long story arc. That meant a new enemy - the Xindi, an unusual race that was made up of five different species, each of which had its own unique look and its own unique ships.

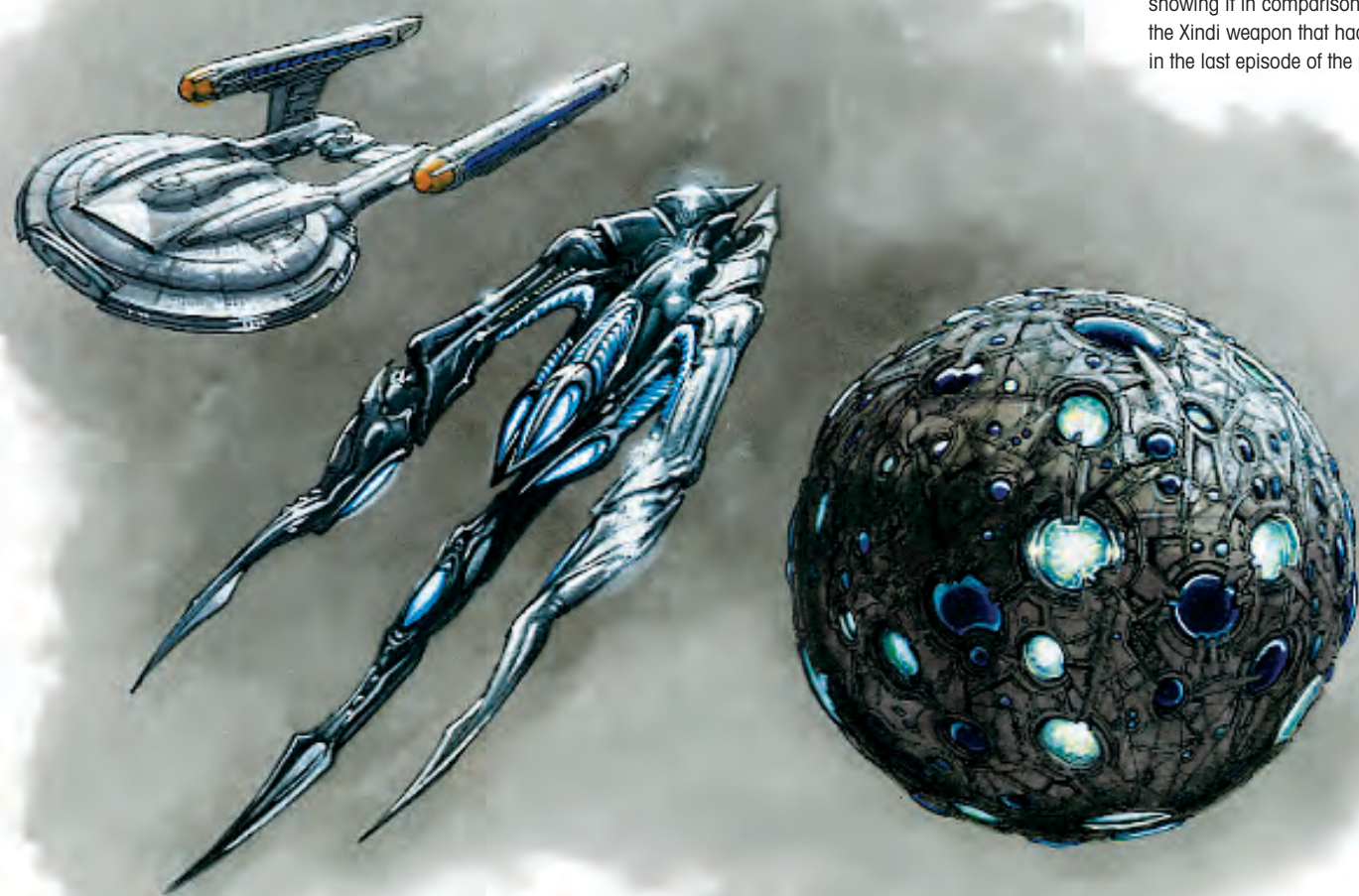
"At first," *ENTERPRISE*'s concept artist John Eaves remembers, "there was only going to be one particular race of Xindi but by the time that the script came out we were going to do a multiple version, kind of like people from different countries. Not necessarily different skin colors but completely different species of creatures, like insectoids, humanoids and so on. The Insectoid and humanoid

species were the first ones we started working with."

As was often the way, the brief for the Xindi Insectoid warship was that it should be very alien and look like nothing we had ever seen before. "In the *STAR TREK* world the approval window was very small but the script would be very broad," says Eaves. "It would always ask for a ship we've never seen before,

DESIGNING THE

XINDI INSECTOID WARSHIP



◀ Before the initial design was submitted to the producers, Eaves produced this drawing showing it in comparison to *Enterprise* and the Xindi weapon that had been established in the last episode of the previous season.

every single script would say that! You'd draw it that way but then it would fall back into the same three or four guidelines that would make it through the approval process."

For the Insectoids, Eaves took inspiration from two places: crickets and, more surprisingly, king crabs. As he explains, he was visiting the local market when inspiration struck. "I was looking into the ice chest and saw these king-crab legs and I thought, 'Wow, that would make a really creepy appendage to a spaceship', so that was where those jaggedy crab-like jointed tendrils came from. As well as the crab legs, I was influenced by cricket legs. I was looking for anything that would give it a bug look. On the backs of crickets they have that serrated shell, and that's where I got the

breakdown of the detail in the central body area. It's got that kind of faceted, louvered look, which came from the back of a cricket. Then I figured it should have some kind of eye port - that would be where the bridge or the command centre would be. So, for that I mimicked bug eyes, but not directly."

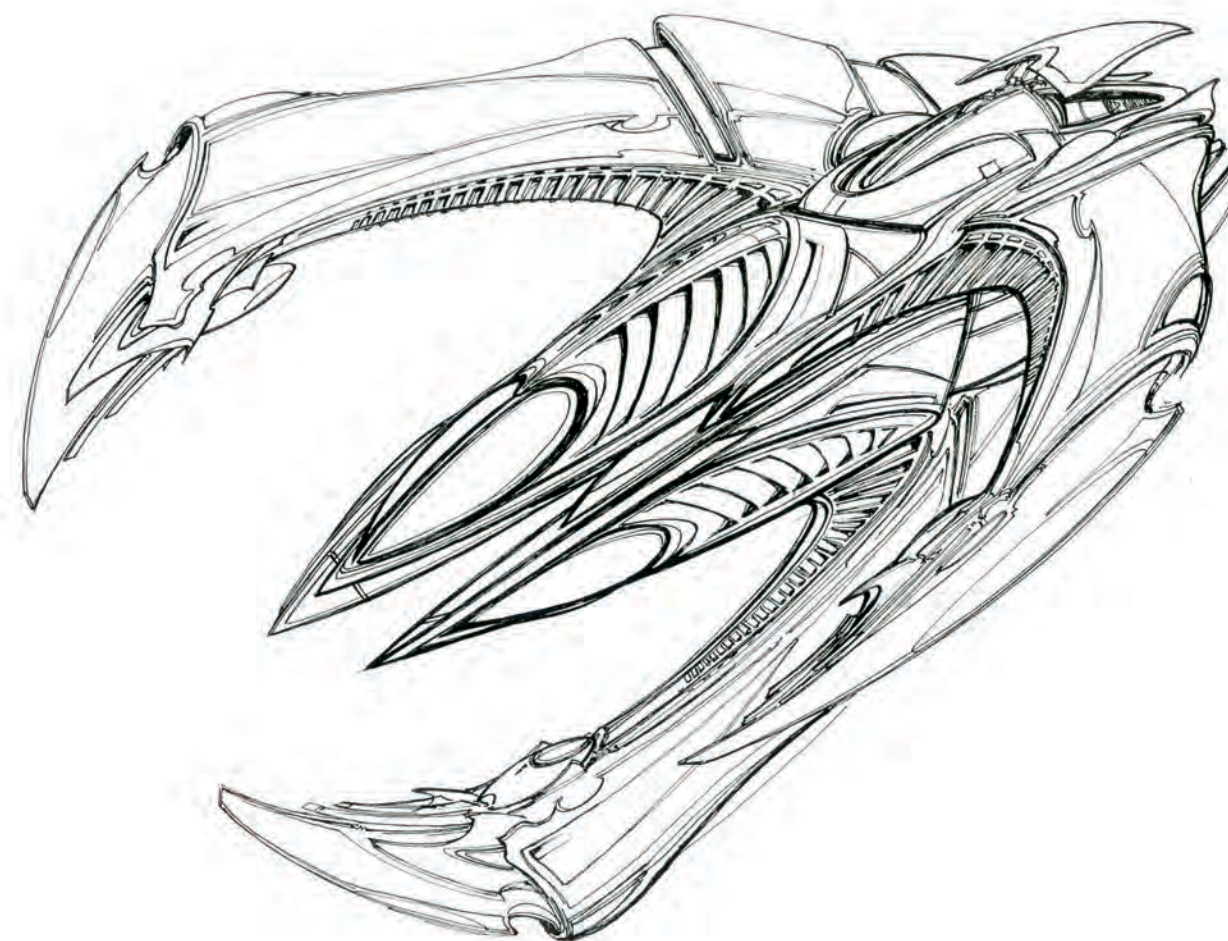
CUTTING BACK

Eaves produced an initial concept drawing that showed a long, thin ship with 'arms' that had three joints. He presented it alongside a drawing that showed the Insectoid ship along with the *Enterprise* and the spherical Xindi weapon that had attacked Earth. Rick Berman was enthusiastic about the basic concept, but requested one major change. "Specifically he wanted to shorten the really long arms," explains

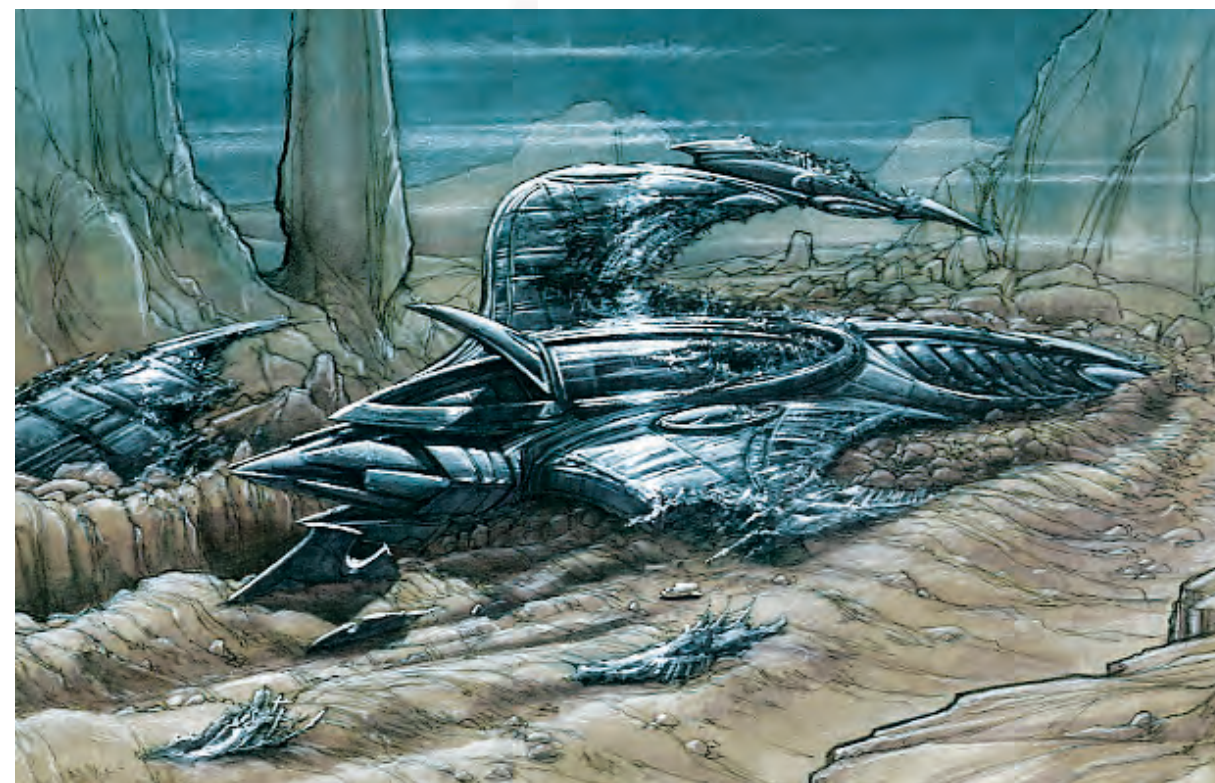
Eaves. "So we pulled it back - it still has that knuckle, but it pulls back to a smaller point."

Eaves returned to the drawing board and cut the third limb of each of the arms off. To his delight, the revised drawing was approved. And, it's a design that he feels genuinely offered something different to the kind of ships we normally saw on *STAR TREK*. "Once in a while things would break through. This one kind of did."

The sketches were then sent over to Eden FX, where Pierre Drolet built the CG model. In the process, Eaves says Drolet refined - and improved - the arrangement of the central section. But the unusual design did cause a little confusion - until Eaves put them right the VFX thought the ship was meant to fly the other way round!



◀ The Xindi Insectoid warship was approved with unusually few drawings. For the second and final pass, Eaves simply shortened the arms, giving the ship a more compact and muscular design.



◀ Later in the third season, the crew discovered a Xindi Insectoid warship that had crashed on the surface of a planet. Eaves produced this drawing that showed the VFX team how the producers wanted the crashed ship to look.

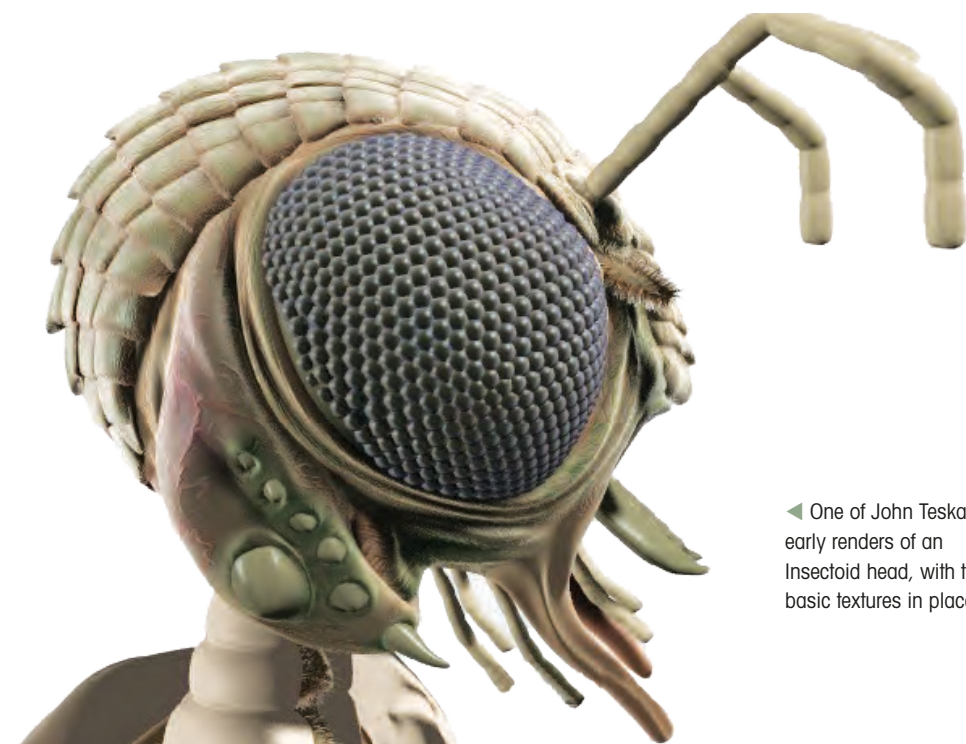


MAKING XINDI INSECTOIDS

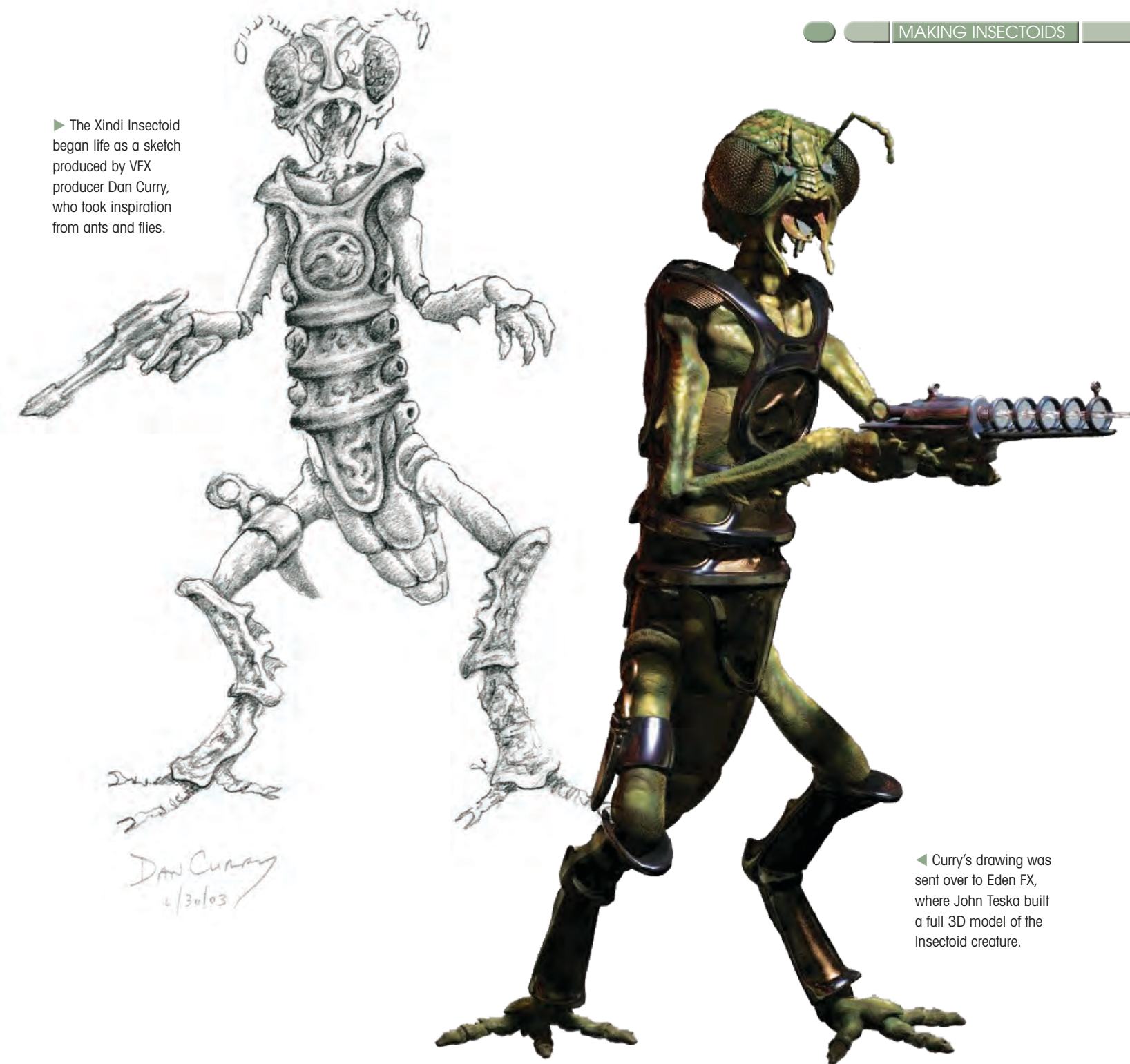
▲ The Xindi Insectoids were completely created in CG and digitally added to scenes. Creating them involved a team of people from actors to animators.

From Spock's Vulcan ears onwards, *STAR TREK* had used prosthetics to create alien races, but by *STAR TREK: ENTERPRISE*'s third season, VFX technology had advanced to the point where the series could regularly feature entirely digital creatures that no-one could mistake for a man in a suit. From the very beginning, executive producers Rick Berman and Brannon Braga planned to make two of the Xindi races, the Aquatics and the Insectoids, fully CG creatures.

When it came to designing these new beings *ENTERPRISE* already had the



◀ One of John Teska's early renders of an Insectoid head, with the basic textures in place.



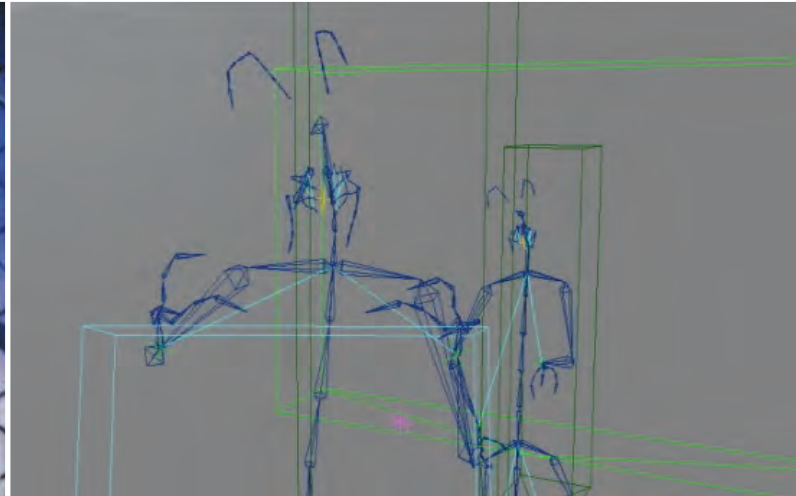
► The Xindi Insectoid began life as a sketch produced by VFX producer Dan Curry, who took inspiration from ants and flies.

◀ Curry's drawing was sent over to Eden FX, where John Teska built a full 3D model of the Insectoid creature.

perfect person on staff, VFX producer Dan Curry. "It's unusual," he recalls, "that the visual-effects producer designs anything. That's normally done by the art department but they knew that I was an artist. Years earlier I'd designed the Klingon bat'leth." Curry also had the advantage of having already worked with a fully CG creature, when the VFX department had created *STAR TREK:*

VOYAGER's Species 8472. The brief for the Insectoids was that they should be, broadly speaking, humanoid rather than something that crawled around on the floor. "We wanted a creature that was about the size of a human being so people could look into its face. I looked at macro shots of various insects and then did kind of an amalgam of a fly and an ant. I wanted them to look

intelligent so I made the foreheads a little bigger than normal." As Curry worked on the design, he paid a lot of attention to working out exactly how the Insectoids functioned. He decided that they would speak by making a series of clicking noises with their mandibles rather than using a conventional voice box that was powered by air from their lungs. He



▲ Whenever the Insectoids appeared on screen, the VFX team had an actor on stage, who was dressed in a suit that gave them reference for all the different movements.

▲ The lines on the suit gave Eden FX the reference they needed to animate the creature, which was done by moving a wireframe skeleton under the CG flesh.

designed special guns for them which could be fired by Insectoid rather than human hands. Their clothing was thoroughly thought through. "Because insects breathe through tubes in their sides," Curry explains, "I designed their clothing with the sides open so it looks like the kind of thing Medieval knights would drape over their coats of mail."

FAMILIAR ELEMENTS

Even the decision to give the Insectoids two arms and legs was carefully deliberated. "The Insectoids only have four limbs rather than six. We decided that, as part of their evolution, they had lost their third pairs of appendages. The

rationale was that, as they became bipedal, they didn't need the third set. But also in practical terms it minimized the animation time." This attention to detail even extended to the furniture the Insectoids used, which Curry specially designed to accommodate their "Insectoid butts".

Once Berman and Braga had approved Curry's sketch he handed it on to Eden FX's John Teska, who is an expert at creature design and animation. "John," Curry says, "is a real genius. He built the Insectoids and worked how they would move."

But having a CG model was only the beginning of the process. "The auteur

theory," Curry insists, "has no place in reality, particularly when it comes to visual effects, which relies on a team of really skilled artists. CG creatures are much more difficult than spaceships because ships don't normally move that much. The Insectoids had to convey emotion, they had to give a performance, they had to have body language."

A REAL PERFORMANCE

Every shot began with an actor, who dressed in a special suit that was covered in a grid pattern, which gave the animators a reference for his movements. Curry has no doubts that

the actors' performances were vital in bringing the Insectoids to life. "Evan English and Tarik Ergin, who we used as stand-ins, were really into playing the Insectoids. I even made little foam-core extensions for their hands so they would have the feeling of having insectoid claws. They really gave a performance and didn't just walk through it."

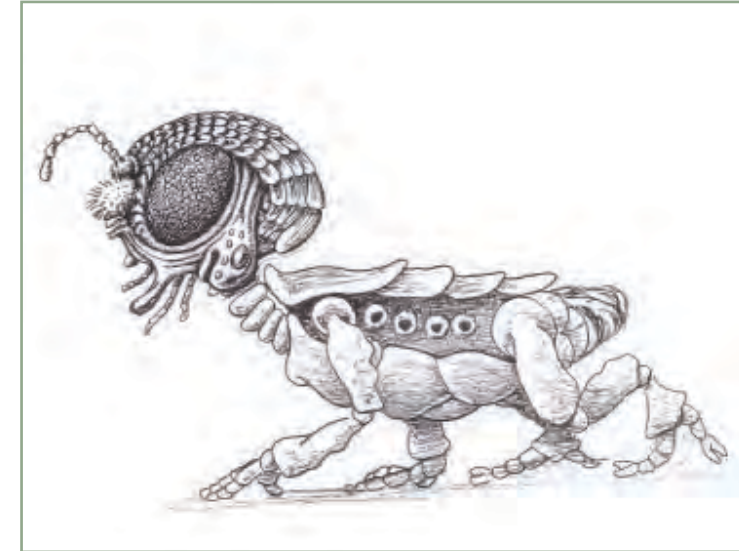
SOMETHING FROM NOTHING

Once the team had filmed the actor on the stage, he would then step out of the frame and the action would be restaged without him in shot. Instead, there would be a space where the animators could add the Insectoid. Doing this was far from straightforward. The shot of the actor provided the animators with a reference they could use to see where to position the Insectoid's head and arms as it moved around, but the CG creature still had to be seamlessly blended into the background. This meant the animators had to recreate 3D space.

Where he could, Curry used a surprisingly low-tech technique to give them some useful reference. "A lot of times I would use a little bounding box I made out of chopsticks hotglued together. By looking at that the animators could see the changes in perspective as the camera moved around."

Another issue the animators faced was creating CG lighting that perfectly matched the real lighting that was used on the set. "We didn't make any concessions to them," Curry remembers. "Our sets were dark, with lots of different sources of light, and they were really great at matching that."

Looking back, Curry is keen to emphasize that the Insectoids were a result of a team effort, the product of skilled actors, artists and animators. "The success of the Insectoids is really a testament to the artistry of our team."



◀ The script for the episode 'Hatchery' called for baby Insectoids. These also had to be created as CG models so Dan Curry returned to his original concept and created what he calls a "Bambi-fied" version of it.

◀ John Teska then created a CG version of Curry's sketch and worked out how the baby Insectoid would move around.

◀ The final step was to create a fully rendered version of the Insectoid babies that could crawl all over Scott Bakula and, in this case, meet a sad fate.



▲ Basic animation of the CG Insectoid was created to match the actors' performances. This was placed over a background with the actors no longer in shot.

▲ The last step was to create the creature in full resolution, carefully making sure that the CG lighting matched the lighting on the set.

ON SCREEN



TRIVIA

John Eaves designed the Xindi Insectoid ship to fly with two arms pointing up and one pointing down but, when it came to creating shots, the VFX team decided that the ship would look cool if it spun around. As result, the Xindi Insectoid warship appeared on screen in almost every possible orientation. Of course, in space there is no such thing as up or down so the same issue should apply to every ship in *STAR TREK*.



Technically, the first onscreen appearance of the Xindi Insectoid Warship never happened. It made its debut in the episode 'Twilight,' which was set in an alternate future where Archer had been forced to resign as captain of the *Enterprise*. Once the timeline was reset, the crew had no memory of the Xindi Insectoid ship, which next appeared in 'Hatchery,' but this time we only saw it crashed on the planet's surface. The crew finally got to see an Insectoid warship in flight in the next episode, 'Azati Prime'.



- FIRST APPEARANCE: 'Twilight'
- FINAL APPEARANCE: 'Countdown'
- TV APPEARANCES: STAR TREK: ENTERPRISE
- DESIGNED BY: John Eaves

KEY APPEARANCES

STAR TREK: ENTERPRISE

'Twilight'

Twelve years in the future, mankind has been all but wiped out by the Xindi. The few survivors have made their home on Ceti Alpha V, where they are hiding from their deadly enemy. *Enterprise's* crew have led humanity here, but Archer is a cripple - when the crew were looking for the Xindi in the Expanse he suffered brain damage that left him unable to add to his memories. T'Pol and Phlox have a plan to restore him but, before they can put it into action, a group of Xindi and Reptilian warships appear and launch a final attack...

STAR TREK: ENTERPRISE

'Hatchery'

The crew of the *Enterprise* are following their best lead yet as they search for the Xindi weapon when they spot a Xindi Insectoid warship crashed on the surface of the planet. When they investigate, they discover that the Insectoid crew are all dead but that they have planted eggs inside the ship that are almost ready to hatch. After one of the eggs sprays Archer with some kind of chemical, he starts to become obsessed with the eggs' safety, and when T'Pol objects he accuses her of mutiny.

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