

LEGO Group



Jens Nygaard Knudsen

The Truth About SPACE!

Article by Mark Stafford

Photos from Niels Milan Pedersen's personal LEGO archives

Everyday I work alongside Niels Milan Pedersen in the LEGO space area of the PMD Design building in Billund. Niels has been with the LEGO Group for over 26 years and sculpted the LEGO horse, crocodile, monkey and skeleton amongst many other parts. He's a living history of LEGO Design. It's rare we (the LEGO set designers) come up with a 'new' idea without Niels pulling out a folder from the 1980s and showing us a previous version of it! However Niels has always told me he is just a youngster and the true historic figures had moved on. Recently he invited me over to the LEGO Idea House to meet with one of these people; his old boss Jens Nygaard Knudsen, creator of the mini-figure and LEGO space!

Jens worked for the LEGO Group from 1968 until his retirement in 2000. "Thirty-two years I worked with LEGO" he told me proudly. He saw the job advertised in a Danish newspaper in 1968 when the company was looking for model builders. His first task was to build hundreds of small LEGO Town cars in many different colors, these were along the lines of the 605 Taxi and the 420 Police Car (the author's first ever LEGO set!) and he designed much of the early 'Legoland' branded LEGO Town sets.

As time passed Jens moved onto bigger sets including the Fire Station, Police Station and Hospital, and it was his idea to incorporate rooftop heliports - "A great success. Still an idea being re-used today." he says. There were just three or four designers at the LEGO Group in the early 1970's so Jens, along with his colleague Bent Irving Andersen, also helped to develop the early electric train system (blue tracks/ white sleepers) "I built lots and lots of trains!" he explained. On a quick trip around the idea house, he lays claim to the 182 and 7710 trains. "I made all of the train chassis elements and the wheels too." He also made most of the 'Basic' sets of the time, culminating with sets 733 and 744, the latter really shows the "Futuristic models" Jens was trying to make, "With lots of functions and technology incorporated."

Jens' first Space sets, indeed the company's first space sets, were the 358 Rocket Launch-pad and 367 Space Module with Astronauts. It was difficult at the time to make a lot of color changes, and grey LEGO elements were not considered bright enough to be the main color in a toy, after some experimentation he considered that blue looked technical enough and the sets were produced with this color predominant. Of course this color would later be retained for the LEGO space line!

Around 1975/76 the design group was re-organized and split into three groups, a concept/forward planning team, the product development team and a support team to make the building instructions etc. Jens initially found this frustrating as he always wanted to do everything. "He still has the energy of seven men!" pipes in Neils at this point. But the advantage was finding lots of time to concentrate on new ideas and concepts, including a smaller 'Legoland' sized counterpart to the bendy armed LEGO figures (also known as Homemaker figures - Editor) and his favorite idea: a LEGO space theme. The two concepts actually developed together and the "Mini-Figure" was first used in the conceptual Space models! "We chose the yellow faces to be racially neutral." explained Jens.

The LEGO company wanted to rush the mini-figure into the marketplace as quickly as possible, "They wanted to have '10' Danish Krona (About \$2-00) sets that featured the new 'LEGOMen' out in the shops before anyone else beat us to it!" Thus the Town and even the new Castle line were put out in 1978 with the newly created mini-figures even though some

of the sets could not fit the new figure into them! It was a marketing strategy to hold back the strong LEGO Space line for a secondary release and to be a big surprise for the Nuremberg Toy Fair in 1979. This despite Space being the first completely finished mini-figure based line in 1976!

Unfortunately one of the LEGO design team 'defected' to the competitor building block company of 'TENTE' and they began to work on a space line, which forced the LEGO Group's hand. Determined to be the first 'Space' construction toy onto the toyshop shelves the LEGO Group had to rush release of three of the LEGO Space sets out into the American market in 1978, more than six months before originally planned. "He left before I created the crater-plate baseplate though, so their space sets, which looked a lot like ours, were all built on several layered



A classic space remote controlled vehicle from 1985.



A Blacktron concept dated 1985, perhaps an early development of Blacktron 2.

plates and were just not as cool as ours." Jens chuckles.

In 1979 LEGO Space arrived properly to huge fanfare at the Nuremberg Toy Fair and was voted "European Toy of the Year 1979" and a full worldwide release followed. Every set in the first wave of LEGO Space was designed by Jens and he also created all of the new elements. The success of the line helped LEGO to hire 500 extra production employees that year and earned Jens a promotion to Chief Designer.

"When we started LEGO Space it was difficult to make bricks in a lot of new colors, or to make new parts. The helmet had to work in space, castle and town for example." Explains Jens: "The colors of the early space sets were a result of this. If we had a lot more new colors then the wings would probably have been white, not grey, in those early ships. We started with



Early Space Police concept from around 1986.



M-Tron walker, 1987, note the early greebling.



M-Tron transforming vehicle, 1987.



M-Tron crane, 1987, this was before the magnets were involved in the theme.



M-Tron 'powersuits' from around 1987.

only Red and White figures, we considered the red ones to be the 'bad' guys, and that they were two competing factions." Jens had wanted a brick that said 'LEGO Space' to be printed and be in all the original sets, much like the earlier 'Legoland' bricks had been in many of his town sets, but again this was a change too many.

"The space logo was made by Hjalmar Nielsen, his first version had a lot of stars around it too, and was beautiful, but this was considered too flashy so the stars were removed!"

I asked about the colors of the classic spacemen and if they had any particular significance to the designers. "The original two colors were explorers, yellow were scientists, blues were technicians or mechanics and I guess the black were warriors, but we were not allowed to make a big deal out of this. We were not allowed to make war."

Niels nods in agreement at this point, "There were a lot of disagreements about the aerals and other elements that pointed forwards on the ships because of the 'no war' policy." Jens takes over, "We were not allowed to make weapons, and these things we built looked aggressive, so there were a lot of 'radar dishes' added and 'sensor probes', but to us they were really guns!" In fact, there was also a fair bit of controversy about making black suited spacemen at all, as some at LEGO thought they were too threatening and Jens had to use the Town police and firemen to prove that hero figures could indeed wear black!

The color change away from the blue/grey/transparent-yellow sets was simply to refresh the space line; the old colors had been done and the design and marketing teams wanted the second line up of space to be fresh for the customers (shops) and consumers (kids). Several color combinations were considered, with red/black, black/white and black/yellow being frontrunners, but the management chose the blue/white with transparent blue windows as the way forward. Jens still seemed disappointed in this choice "I wanted some silver elements, and maybe the black and yellow color scheme, later I made Blacktron using that though!" But he admitted the blue/white combination did allow a nice continuation from the first round of the space theme.

The space line pushed forward many innovations at the LEGO Group, transparent colors (other than clear) were first made for space, there were opening hinged doors and roofs with vehicles inside, ships that were modular, 'Light and Sound' bricks were created for space, the monorail invented, raised and multi-colored base plates were also first made for the LEGO space lines, and so much more. Jens feels the space sets explored and expanded a lot of the company's technological frontiers.

"I remember we all even made a stop-motion space movie in the late seventies, Kjeld [Kirk Kristiansen] might still have it. We all flew to Copenhagen and had a premiere in a cinema there!" They laugh and break into Danish for a few minutes, and then tell me they won't translate that as there was no way I could publish that story! Then they laugh again. "We also flew to Copenhagen to see Star Wars when it came out, but it didn't influence the early space sets as we had finished them in '76, and the very first versions I did were back in '73." said Jens.

Jens hired Niels in 1978, partly as they found they had the same hobby of sculpting and molding tin figures (a hobby both continue) and together they worked on the LEGO space lines, though Niels was heavily involved with the castle line too. The space line continued to evolve and LEGO felt the need for a large re-vamp of the line. "We made a lot of new elements end



The M-Tron we almost had. A variation of LEGO's M-Tron theme dated 1987.

colors for the Futuron theme, but when we tested with kids, they were un-impressed, it was the mini-figures new diagonal print still with the space logo on it that all of them were impressed with. Kids like this kind of detail." Says Jens.

Space had become a core product line at LEGO and through the eighties Jens continued to work on every space line; "Blacktron, Space Police, Magna-Tron (M-Tron), Blacktron 2, more Space Police and Sea-Tron."

"Sea-Tron?" I asked, "Is that Aquanauts?"

"Yes." Said Jens "It was underwater-space. Spaceships on a water planet."

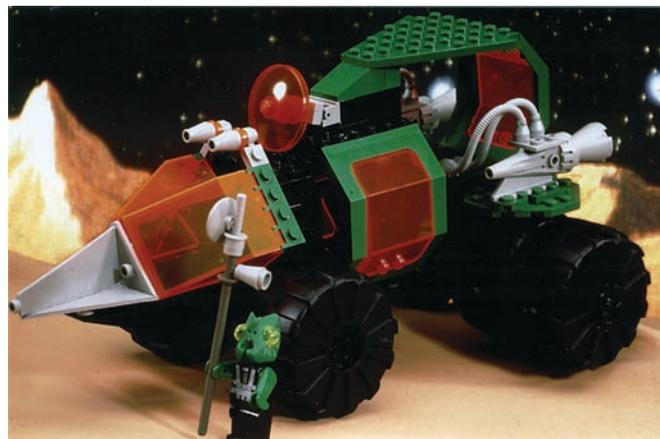
"Like Ice-Planet later?" I asked

"Precisely. It was an alien planet where the astronauts were underwater, it's LEGO space though."

"Wow. That's going to surprise a lot of fans, a 'new' old space theme!"

During this time Jens worked with Peter Bolli in Switzerland to create new colors, the light and sound bricks and later the monorail. The monorail was intended to be a much larger theme, and several other elements were made for the tracks and the switch-points but the market for the monorail was not what was expected and these ideas were shelved.

They also tried alien mini-figures around the M-Tron to 'Sea-Tron' period, Niels sculpted them, with a cool spine and webbed feet but management felt it was not right at the time and aliens would have to move forward later. However some of the old

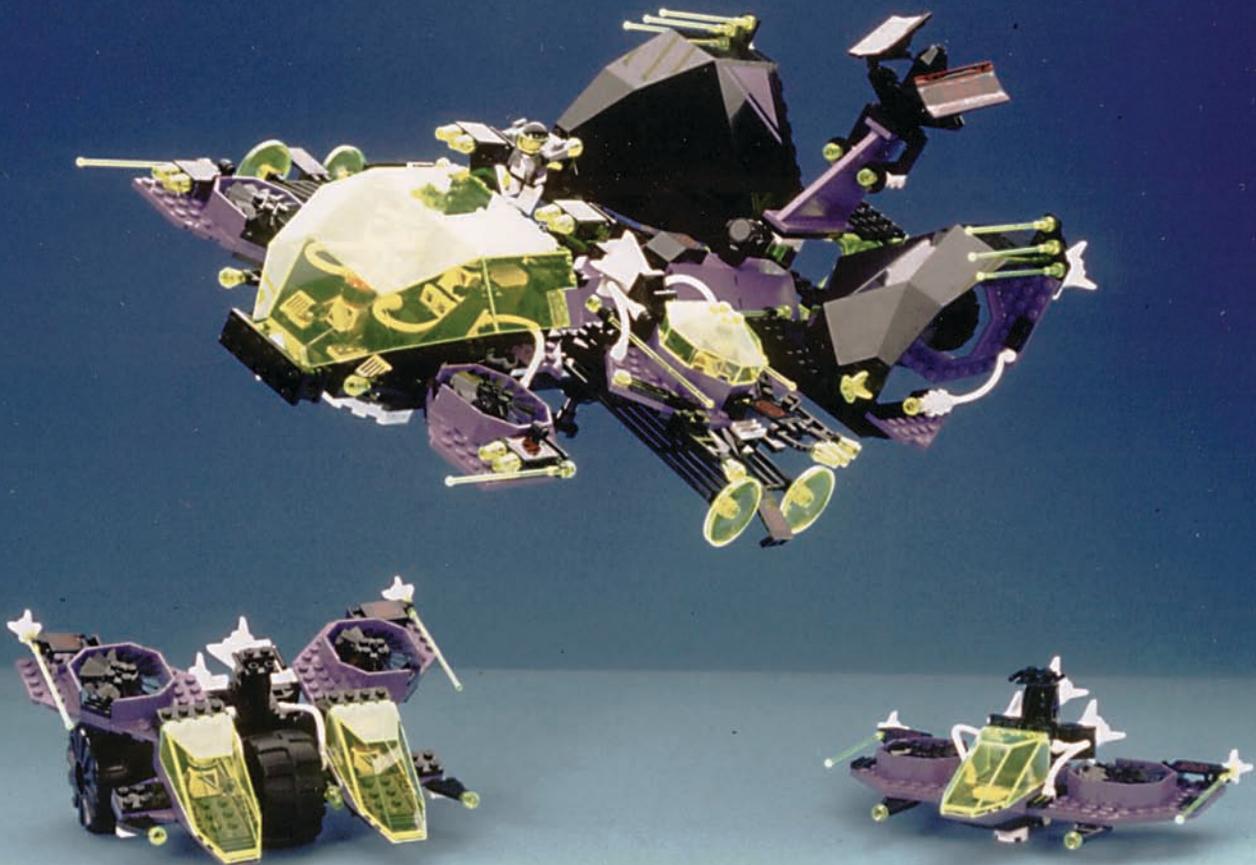


An alien explorer from 1988.



An unused AFOL like space concept from 1989.

A concept dated as 1989, but with many ideas and colors that would later be used in 2001's 'Life on Mars' LEGO theme.



drawers in the Design building still have these early alien concepts in them.

That was about the end of Jens' involvement in LEGO Space (some lines were held back by marketing and this may explain why the order Jens remembers designing them in does not match up precisely with the order in which the lines came out). A new design team took over space after M-Tron, and the same new team also developed the incredibly popular Adventurers line. Jens gives the impression he feels it was left in good hands. He himself moved on to work on future concepts and technology and eventually retired from LEGO in 2000.

Jens has been introduced by some of his ex-colleagues to many of the fan models of Spacecraft on the internet and has seen: "So many fantastic models by so many builders!" In retirement Jens has continued to use LEGO at home and builds LEGO trains, he has a large collection of 'Techno' [mechano] cars and continues to sculpt his own tin figures.

Niels still works for LEGO and has recently designed the Space Police 3 set 5971, 'Gold Heist' and made the preliminary sculpts of all of the new Alien Mini-figure heads based on the concept art!

Working here at LEGO it's pretty cool when you mention a favorite childhood (or adult) LEGO set and one of your colleagues owns up to designing it, but though amazing, it has never left me as star struck as I was meeting Jens. While he, Niels and I talked I was often left lost for words, not knowing what to say next and all I really wanted to do was thank him for all of the best toys of my childhood and let him know how much I appreciated it. So apologies if I didn't ask everything my fellow adult LEGO fans might have wanted to know. 



Sea-Tron monorail from around 1990.



One of several M-Tron era aliens by Niels Milan Pedersen that never made it to market.

Sea People, another Sea-Tron concept from the early 1990's.

