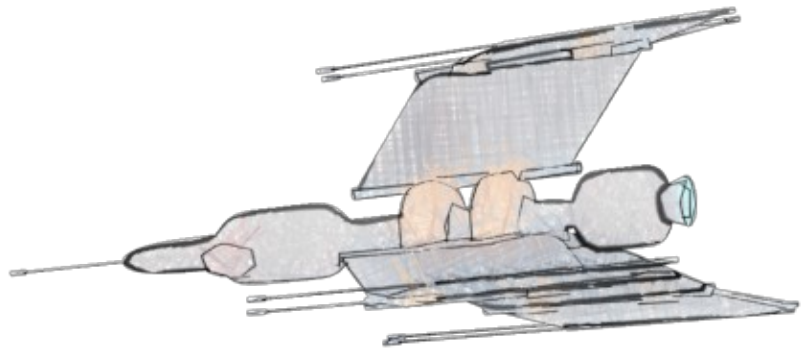


# Interview with Shing Robert Al-Ramadam, head ship designer of CSE



CSE (Custom Ship Engineering), an intergalactic private-owned corporation, is best known for its customized space stations and utility ships, like the famous Spacetainer system and the automated forklifts.

However in the last few years, it has started to release several new customized spaceships that have drawn the attention of the industry. This attention is largely due to the influence of star designer Shing Robert Al-Ramadam.

## *Spaceship Daily:*

*Shing Robert Al-Ramadam, what is different in the way you design ships?*

## **Shing Robert Al-Ramadam:**

There are many schools of thought on the best procedure to design spaceships. The traditional approach, used for example by CSE Utility Ships and Space Stations, consists in defining the function, and developing the form that best and most efficiently fulfills its requirements. The CSE Forklift, for instance, is basically two engines and grabber arms – the essence of the function.

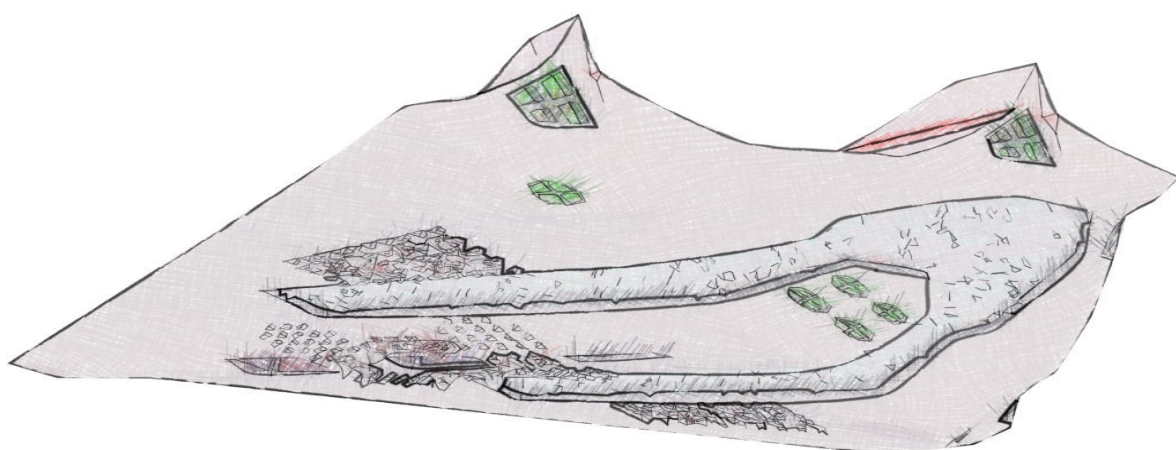
Another school of thought is best represented by Lindsey Reid of Procedural Reality [see interview on page 46 of this issue. Ed], the star player in fabrication of individual ships. She defines geometries and

transformations by using functions to obtain a huge number of breathtaking designs - enabling the series planning and fabrication of individual ships.

My approach is not focused on engineering, such as the traditional functional approach, nor on shape, ala procedural reality.

It is based on psychology.

I try to understand the philosophy of the customer and to create a ship that will feel natural, as it will fit its nature. This is of course possible as our "custom ships" are designed for a specific customer ; usually a spacefaring civilization, sometimes a corporation or



even a religious group.

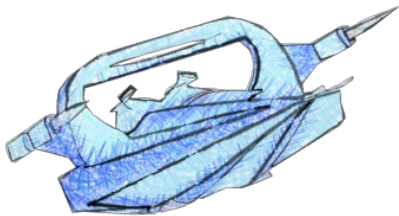
**Spaceship Daily:**

*Can you elaborate about how philosophy or psychology impacts the design?*

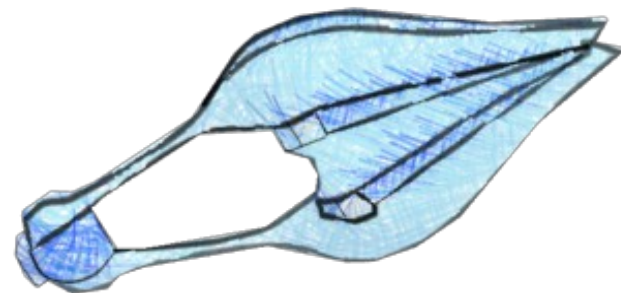
**Shing Robert Al-Ramadam:**

Well, let's take the order from the M'mmaluuk Mothernest for a habitat-ship. As you know, the M'mmaluuk are a species used to living in densely populated cities ("nests") built in old craters, with extended deserted regions between nests, where most of their daily work is conducted.

In order to feel comfortable, they need to feel the presence of other



individuals, but to have large open areas. So a ship with an internal habitat would make them uncomfortable due to claustrophobia; but a habitat outside of a structure would make them

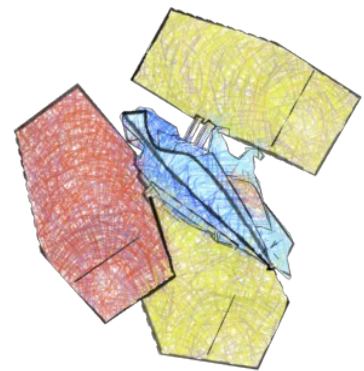


feel uncomfortable because of agoraphobia.

My solution was a convex design, like a banana [see original sketches of Mr. Al-Ramadam on this page, Ed] - every building in the city can see the other buildings, but it is oriented outwards. The utility bay is a large structure open to space.

Also the individual ancillary ships use the concept of an open-closed design with structural holes. The ships are

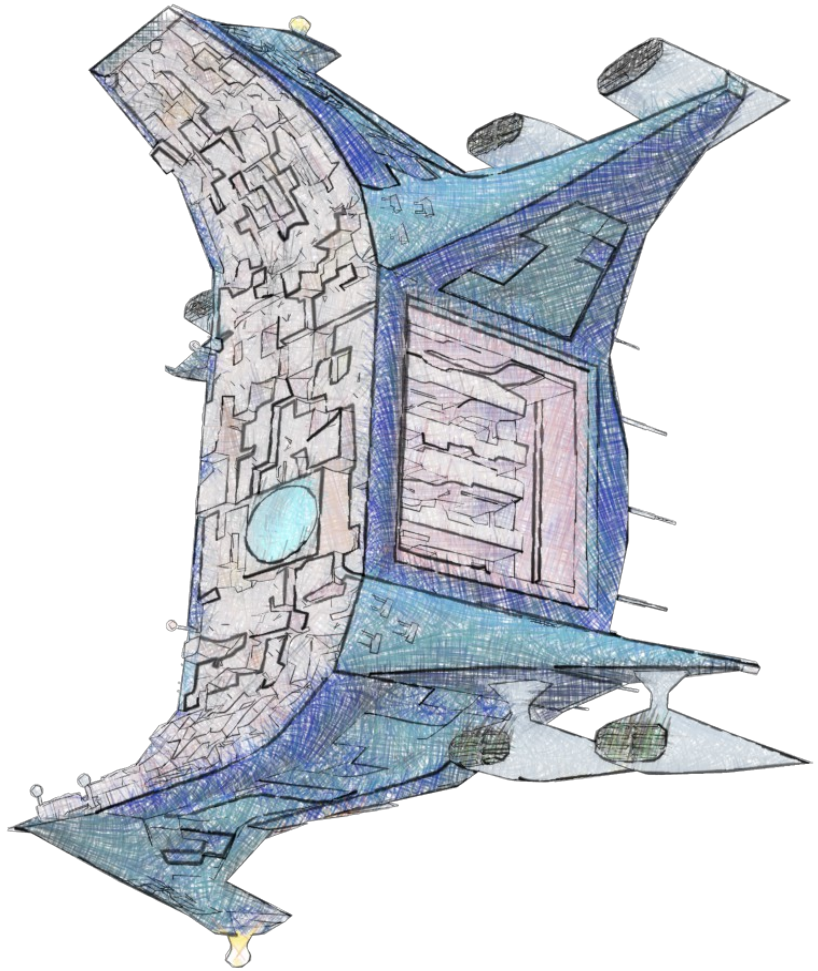
lean enough to be able to work efficiently in the utility area.



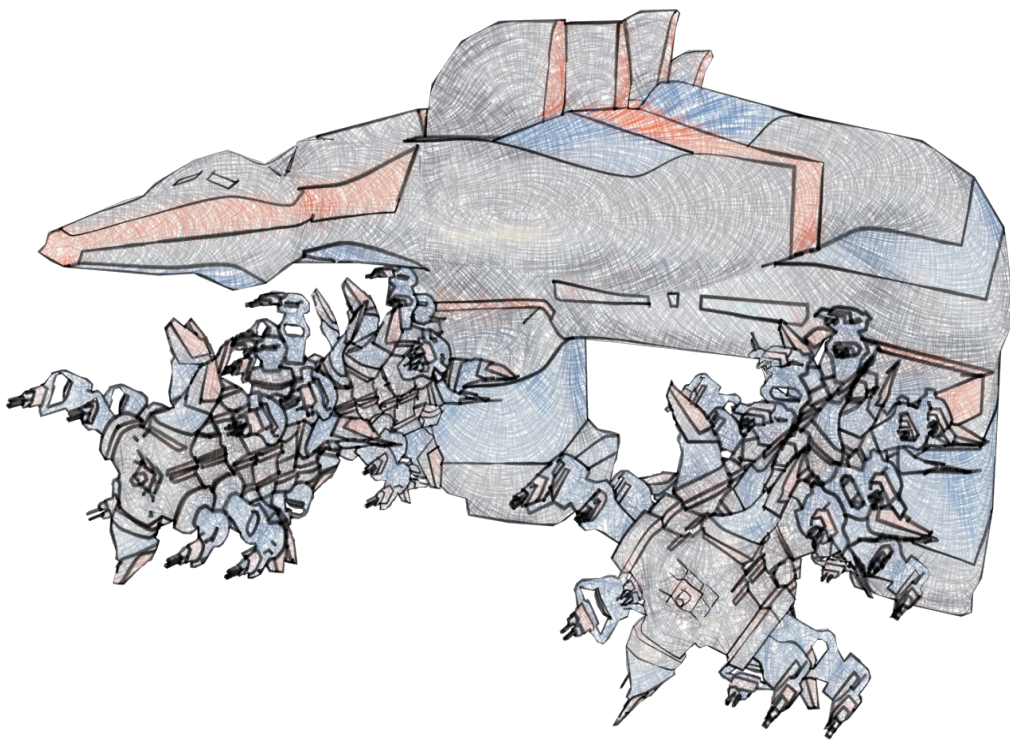
The design was very successful and we have already delivered several dozen "SpaceNests" with assorted utility ships.

**Spaceship Daily:**

*Do you have another example?*







while docked; and those warriors needed to be able to leave the mother structure to swarm out quickly.

This was achieved with a design utilising carrier spindles, with short-range asymmetric ships arranged on the spindles so that

each weapon has a free field of fire.

With fast ejection systems, the small ships (that mostly consist of a cannon, engine and stabiliser wings) can swarm out like many deadly firing devils [see second sketch, Ed].

This unconventionally asymmetric design fits naturally to their behavior, so they can feel perfectly at

**Shing Robert Al-Ramadam:**

Sure. You know the Aräh species? They live in the outer rim, and have licences to several stellar systems for which they require a ship for their police force.

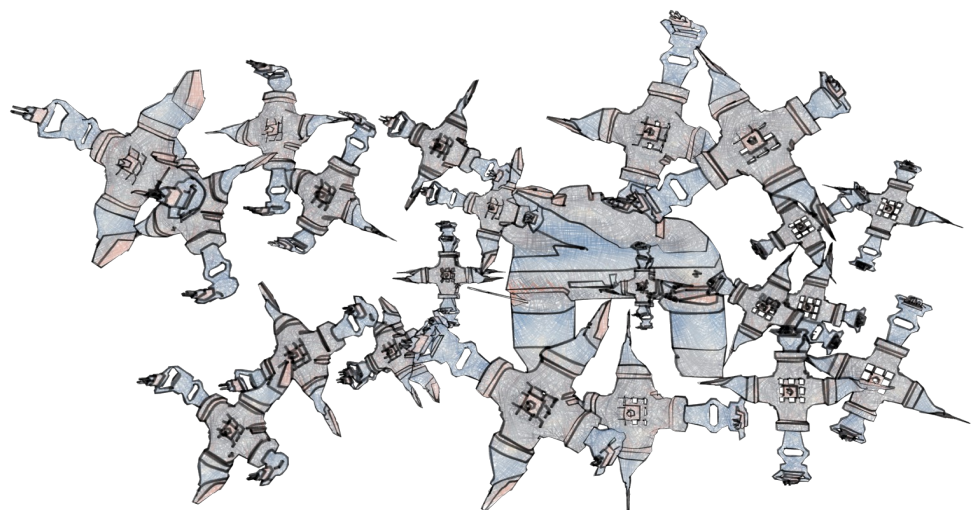
The psychology of the species is interesting: they usually stay in small groups with the Queen, workers and warriors moving together in a close-knit structured team.

The warriors would use their weapons to open a path in the dense forest of their homeworld.

In the case of danger,

however, the warriors swarm out and fill the space between the Queen and the menace, making pseudo random moves and using their weapons to create covering fire.

Therefore we required a centralised design, large enough to host the Queen and workers, but a design where the warriors could be positioned in front of the ship and use their weapons



ease and therefore gain in proficiency!

**Spaceship Daily:**

*What was the strangest request you have received so far?*

**Shing Robert Al-Ramadam:**

Well, I had to design a strike force for the Krrai. The difficulty is their social structure. As they always breed twins, and are strictly equalitarian between offsprings, most functions are filled by two brothers of the same rank. Usually on normal commercial spaceships this makes problems, as most functions are thought to be managed by one person.

This could be an asset, though, as brothers are linked telepathically, so they could communicate with no

delays even at large coordinated fleets. distance.

For this reason, I developed the concept of a twin carrier – each function is attached to one half but either of them can command the whole ship during

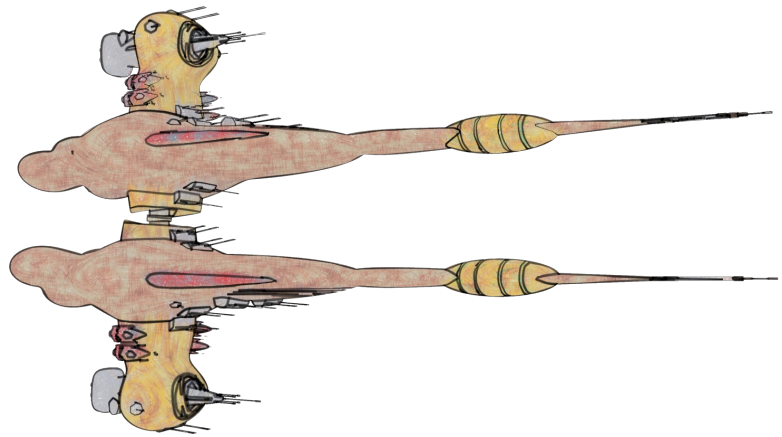
routine operations. These are day and night shifts, so in an emergency situation, the ship can split into two functioning and perfectly

The concept is mirrored in the destroyers and the two wings of heavy fighters assigned to each carrier.

The design worked well and it has been reported

that the victories with the skirmishes of the 4th quadrant are partly due to the use of this ship concept.

Physically, the ships are also made to resemble the soft curves, but rough skins of the Olifants; the mounts that carried medieval Krrais to war. This is my favorite example of how design can, by making



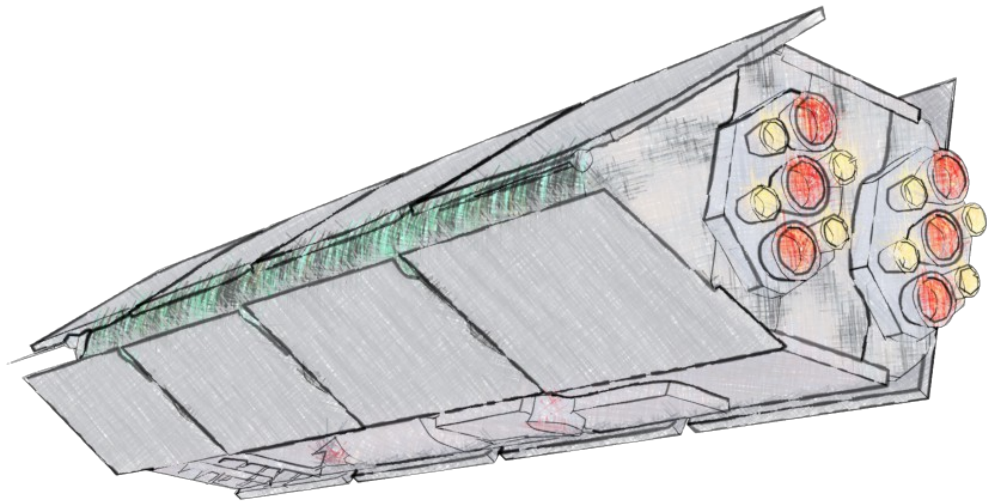


objects that feel natural, allow proficient utilization without a steep learning curve.

**Spaceship Daily:**  
*What are your next challenges?*

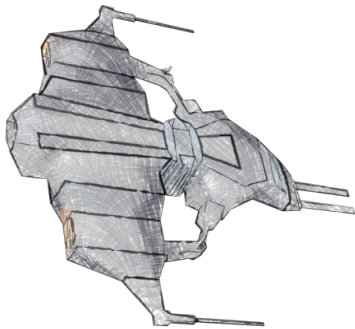
**Shing Robert Al-Ramadam:**

I am thinking of redesigning a fleet for the Pullin Hegemony. Today, they are ugly standard boxes [see sketches of a destroyer, an orbital bomber and a fighter, Ed].

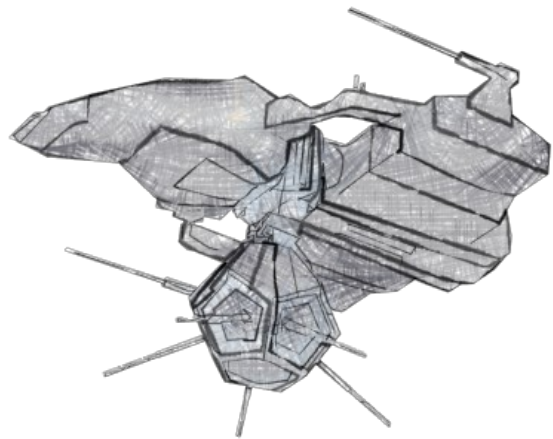


I am toying with simple geometries like triangles, and I have some early concept art [see sketches on first page of the article, Ed]. The final products can turn out quite different, though.

**Shing Robert Al-Ramadam:**  
It was a pleasure – thank you for the opportunity!



**Spaceship Daily:**  
*Thank you for your time and the interesting discussion.*



*From Sketch to reality – the CSE Krrai twin carrier:*

