

Chimera Research

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**Research Report for Chimera
and My Own Design Ideas**

²
Declaration of Own Work

I, Wang Jinglong, confirm that the work for the following term paper with the title:

**" Research Report for Chimera
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was solely undertaken by myself and that no help was provided from other sources as those allowed. All sections of the paper that use quotes or describe an argument or concept developed by another author have been referenced, including all secondary literature used, to show that this material has been adopted to support my thesis.

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Abstract

In this paper I will research the history of the Chimera as well as its modern elements.

Then present my personal design inspiration, design research as well as design ideas and sketches for a brand new species for the film Chimera.

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Introduction

The purpose of this paper is to create a brand new species to appear as a character in the new film Chimera. Its overall design idea should be scary and dangerous, lurking in our neighborhood. And before discussing the design it is important to start with the meaning of the film's title Chimera.

Chimera³⁰ is one of the main characters often seen in today's magical works, and as a monster it has been used in many works with powers no less powerful than Dragon. With his diverse abilities and bizarre appearance, he is a monster full of strangeness and horror.

⁹ According to Greek mythology, the Chimera was a fearsome fire-breathing hybrid creature from Lycia, Asia Minor, made up of different animal parts. It was usually depicted as a lion, with a goat's head protruding from its back and a tail that may have ended in a serpent's head. It is a descendant of Typhon and Echidna, and a sibling of monsters such as Cerberus and Lernaean Hydra.¹⁴

¹ Homer describes Chimera in the *Iliad*, saying:

"She was of divine stock not of men, in the fore part a lion, in the hinder a serpent, and in the midst a goat, breathing forth in terrible wise the might of blazing fire." [1]

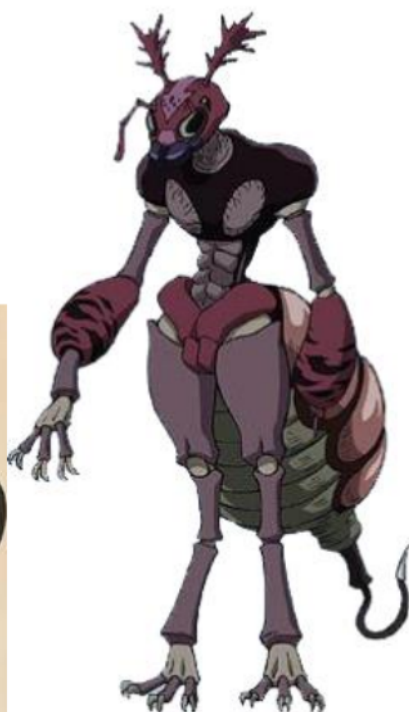
Hesiod and Apollo Dorus give a similar description: a three-headed creature with a lion in front, a fire-breathing goat in the centre, and a snake behind. [2]



³ According to Homer, Chimera, who was raised by Araisodarus, was "the bane of many people". And as a bane, it is the destiny of the heroes in the myths to kill them. In the *Iliad*, the hero Bellerophon is ordered by the king of Lycia to kill Chimera. [1] Hesiod adds that Bellerophon was helped by Pegasus in killing the Chimera. [2]

The myth of Chimera can be found in the *Bibliotheca* of Pseudo-Apollodorus, Homer's *Iliad*, Hyginus's *Fabulae*, Ovid's *Metamorphoses*, and Hesiod's *Theogony*.

Nowadays the word Chimera can be used to describe any mythical or fictional creature with body parts taken from various animals, to describe anything made up of different parts, or to describe something that is considered to be extremely imaginative, unbelievable or dazzling. For example, the Chimaera in *Harry Potter* and the Chimera Ants in *Hunter X Hunter*.



Modern Chimera

As mentioned above, modern-day Chimera no longer exclusively refers to monsters with lion bodies, goat heads, and snake tails. Any mixture of creatures can be called a chimera, though creators still give their creations special names. Some have even added human elements to their chimeras to further add to their horror.

Next I will talk about some of the unique and impressive chimeras that are being created today.

FULLMETAL ALCHEMIST

The *FULLMETAL ALCHEMIST* manga was published in 2001, and due to its popularity it was subsequently animated in two versions by two companies in 2003 and 2009 respectively. Its author, Hiromu Arakawa, has a number of full-length and short serialised works to his credit, and has also won a number of awards, including four for *FULLMETAL ALCHEMIST*.

FULLMETAL ALCHEMIST is set in a world where alchemy is very advanced, and although it is based on the principle of equivalence, it is almost omnipotent, and can even make "human bodies". Chimera, who appears in the book, impresses many readers.

In the fourth episode of the Fullmetal Alchemist 09 anime, the alchemist Shou Tucker fuses his daughter and her pet dog into a human-speaking chimera just for the sake of honor. The scene where the chimera says "big brother" to the main character, Edward, made many viewers feel sick and sad.



FULLMETAL ALCHEMIST itself is biased and dark narrative style, so the work of the Chimera also does not reflect the general Chimera should have the horror and oppression, on the contrary, it is the use of Chimera mixed with a variety of animal characteristics reflect the darkness of human nature.

The main character, Edward, also exclaims in the episode: We're not demons, we're not gods. We're human beings! Small people who can't even save a girl!

Source of Inspiration

Greek mythology, the origin of Chimera, is an epic tale of heroes and gods. In the midst of such grand narratives there is no shortage of monsters to complement the heroes, whose stories are either horrific or sad, but in any case they have been an important design inspiration for me.

Arachne

Arachne is nowadays generally referred to as a half-human, half-spider monster. She is similar to a centaur, but more brutal and vicious.

Arachne is the protagonist of a story in Greek mythology, and the version told by the Roman poet Ovid is the earliest surviving source of the tale. In the sixth book of his epic poem *Metamorphoses*, Ovid tells the story of Arachne, a complacent mortal who challenges the goddess Athena to a weaving contest. Arachne scandalises the gods with her weaving, and when Athena loses the contest to Arachne, the goddess becomes so enraged that she tears up Arachne's weaving and beats her with a shuttle. Arachne hanged herself and Athena turned her into a spider to punish her and her descendants for weaving webs. [3]

Arachne's story brought me to the first element in my design, the spider.



Medusa

Medusa, also known in modern times as the Serpent-Haired Demoness, has hair in the place of vipers, capable of unleashing vicious curses, and is often portrayed in modern works as the embodiment of curses or plagues.

⁷ In Greek mythology, Medusa, also known as Gorgo, is one of the Three Goddesses. Medusa is often described as a human female with live vipers instead of hair. Those who gaze into her eyes are turned to stone. Most sources describe her as the daughter of Phorcys and Ceto. [2]

Medusa, on the other hand, brought me the second element I needed, the snake.

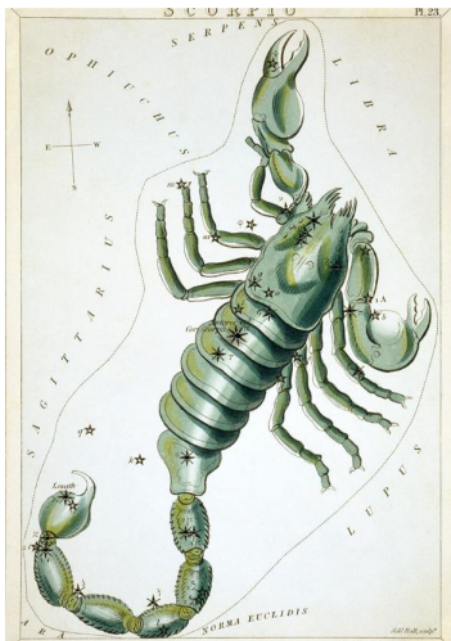


Scorpius

Scorpius, unlike the last two, is not some sort of monster incarnate, but its equally powerful enough in Greek mythology to highlight its might.

In Greek mythology, some of the ¹myths associated with Scorpius attribute it to Orion, who, according to one version, boasted to the goddess Artemis and her mother Leto that he would kill every animal on Earth. Upon hearing this, Artemis and Leto sent a scorpion to slay the arrogant Orion, and their battle was so loud that it attracted the attention of Zeus, who then sent both fighters into the sky to remind mortals to restrain their excessive pride. The scorpion sent into the sky is now known as Scorpius. [1]

This is the last element I used, the scorpion.



Animal Research

Going back to my source of inspiration, except for Scorpio, which is the incarnation of a pure animal, Medusa and Arachne are both combinations of humans and animals, one is a human and a snake, and the other is a human and a spider.

And the Chimera that I plan to design later is not going to add human elements. Then my chimera should be a combination of spider, snake and scorpion. It just so happens that they have some similarities, for example, some of their varieties contain toxins that can kill. Not only that, even their initial letters happen to all be S.

Spiders

Spiders are air-breathing arthropods with eight legs, fangs capable of injecting venom, and spinnerets for spitting silk. [4] Spiders can be found in almost every terrestrial habitat except Antarctica. [5]

Anatomically, spiders are arthropods but differ from other arthropods in many ways. Spiders usually have two body segments, a cephalothorax and an abdomen, connected by a small cylindrical pedicel. However, since there is no evidence that spiders ever had separate thoraxes, there is some objection to the use of the term "cephalothorax". Similarly, there is opposition to the use of the term "abdomen" because the abdomen of the spider contains the heart and respiratory organs. [6]

Spiders, as arthropods, also belong to a special class of chelicerates among them. Chelicerates are unique among arthropods in the fusion pattern of their heads, which have no antennae and instead have a pair of chelicerae. The spider's chelicerae have two segments, the fangs at the end and the "whiskers" at the front to filter out solid lumps, which results in spiders only being able to eat liquids. [7]

Instead of normal appendages, the spider's abdomen has short, specially modified silk spinnerets. Each spinneret had several nozzles, and each nozzle was linked to a gland.

There are at least 6 different types of these glands, and each of them can produce a different type of silk thread. [7]

This is the reason why Arachne's legend associates weaving with spiders.



Snake

The snake is an ³elongated, limbless, carnivorous reptile of the suborder Serpentes. Like all other scaly animals, snakes are ectotherms, amniotic vertebrates covered in overlapping scales. [8]

The organs in the snake's body are designed to fit into a narrow body, in which pairs of organs are not arranged side by side, but one in front of the other, and in which most snakes have only one functional lung. [9]

¹²Snakes are often thought to have evolved from burrowing or aquatic lizards, with their earliest known fossils dating back 143 to 167 Ma ago. [10] The diversity of modern snakes appeared during the Paleocene period. ¹¹The oldest descriptions of snakes can be found in the Brooklyn papyri.

Most species of snakes are non-venomous and those that are venomous use their venom primarily for hunting and not for self-defence. Some venomous snakes have enough venom to cause very severe pain and possibly even death to humans. [11] Non-venomous snakes, on the other hand, either eat their prey alive outright or kill it via Constriction when hunting. [12]



²⁷ Scorpion

Scorpions are predatory arachnids of the order Scorpiones. Scorpions have an evolutionary history dating back 435 million years. They live mainly in deserts, but are adapted to a wide range of environmental conditions and can be found on all continents except Antarctica. [13]

The body of the scorpion can generally be ²⁹divided into three parts, namely the cephalothorax, anterior abdomen and posterior abdomen. The cephalothorax and anterior abdomen together, known as the carapace, are flattened and long oval; the posterior abdomen is segmented and caudal, also known as the tail. The entire body is extremely lute-like, with the entire surface of the body being highly chitinated and sclerotised. Some scorpions are also divided directly into 2 parts: the carapace and the tail. At the end of the scorpion's tail there is a venomous sac containing venom, together with a venomous stinger. It is used by the scorpion to kill its prey and to defend itself from its enemies. [14]

The scorpion has a yellowish-brown body, with lighter coloured ventral surfaces and appendages, and darker coloured posterior abdominal segment five. Scorpions are dioecious and slightly different in appearance. Cephalothorax, consisting of six segments, is trapezoidal, dorsal compound cephalothoracic armour, which is densely covered with granular protuberances, a pair of middle eyes in the centre of the back, and three lateral eyes on each side of the anterior end; there are six pairs of appendages, the first pair of chelipeds that help feeding, the second pair of long and thick tentacles shaped like crab chelipeds, which can catch food, sense of touch, and defensive functions, and the remaining four pairs of stepping feet. The mouth is located at the bottom of the anterior chamber of the ventral surface. [15]

Scorpions emit ³¹a blue-green fluorescent light when exposed to ultraviolet light at certain wavelengths due to the presence of fluorescent chemicals within their epidermis. Hand-held UV lamps are often used by scientists to find scorpions during night-time field surveys. These fluorescent substances accumulate with each mature bone as it hardens, so only the adult scorpion emits a more distinctive glow. Through the glow on their bodies, scorpions can sense otherwise invisible ultraviolet light, which helps them to quickly find dark places. [16]

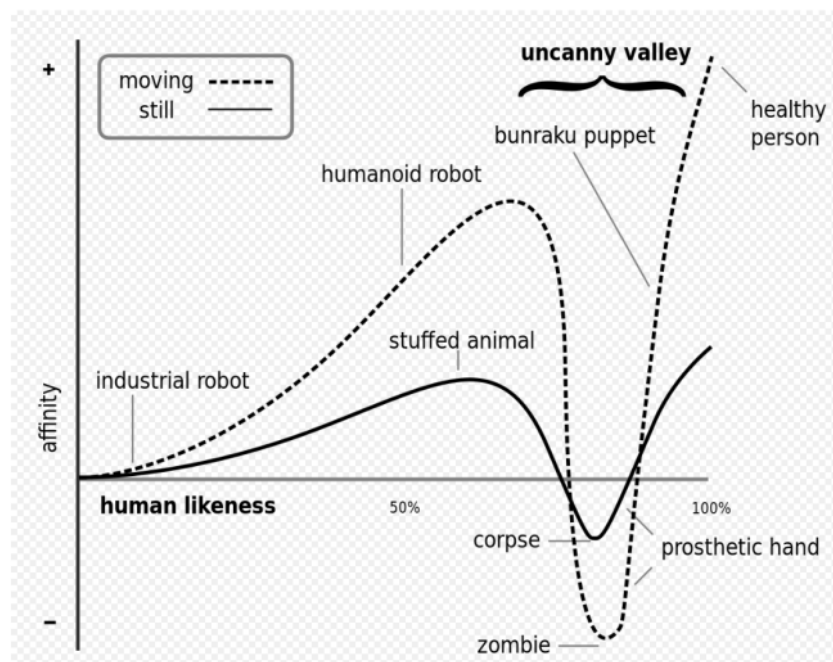


Main Design Concept

My design concepts are largely inspired by the famous theory of the Uncanny Valley.

In the concept, Masahiro Mori makes a point. People will be attracted to robots when they reach a certain level of resemblance to humans. But when that level of similarity exceeds a certain threshold, people's reaction to it instead becomes one of revulsion and disgust. And beyond another threshold, where the difference between robots and humans approaches the difference between them and individual different ordinary people, people return to treating these robots with positive emotions, producing empathy between humans. [17]

And this concept can be extended to anything else. in the sense that something the closer to our daily lives, but with a slight difference, the easier to stir up feelings of fear.



And after the Valley of Terror effect, another major source of influence is the distinction between horror and terror.

Horror generally refers to the terrible things that people can see and touch, and its main elements are death or violence. In addition to death and violence in many films and TV productions, there are also the use of simple jump scares as a thriller element. And these can really bring people a simple and clear visual impact.

In contrast, Terror does not focus on these superficial elements of representation. It doesn't focus on superficial death and violence. Instead, he uses the unknown and what has yet to happen to bring the audience a horrific experience. As with forcing people towards a cliff in the dark, the terror that comes from the pressure of not really knowing if you're going to die or live next that goes straight to the heart. [18]

HORROR VERSUS TERROR COMPARING THE TWO TYPES OF BOOKS AND FILM	
HORROR  Horror creates feelings of shock and fear.	TERROR  Terror builds feelings of suspense and unease.
Death and violence are overt.	Death and violence are often implied or suggested.
More straightforward plot with jump scares and creeping dread.	More subtle story with looming tension and hidden fears.
Its purpose is to scare.	Its purpose is to unsettle. 
NEILCHASEFILM.COM	

My design concept is a combination of the Uncanny Valley and the idea of Terror. The closer something is to real life, the more it is hidden in everyday life, but the more it is different from everyday life, the greater the terror it brings. In short more common, more terrifying.



Design Process

After confirming the design concept, it was time for the design process. All chimeras are actually made by taking a certain animal as the main body and then adding additional accessories to it. For example, the original chimera was based on a lion.

As for the animals I'm going to use for the design, snakes, scorpions and spiders, if I simply extract their external features other than their trunks as keywords, I get such as long tongue, covered with hair, many eyes, many legs, tail with barbs, pincers, carapace and so on.

The keywords that can be extracted from snakes are obviously not as good as the other two at all, but if one thinks about adding the rest of the elements with snakes as the main body, the finished product it can produce is too similar to the existing sandworms. The slender body plus the element of polypods.





While my concept is that the closer the object is to life, the better, it doesn't mean I should spell out a product with 3 species that is close to the 4th species. That's why I ruled out snake-themed designs.

After excluding the snake as the main body of the design, the snake itself is too sparse in terms of extractable features, and it seems that I had to consider adding the whole snake as an element into the design as a component.

And this seems to be the reason why many snake-related designs, both ancient and modern, feature at least half a snake's body, such as the primitive chimera, which has half a snake attached to its body.

After solving the snake-related problems, it's time to rethink who the scorpion and spider should use as subjects. In the same way, if I take the scorpion directly as the subject, then again, I had to select the element from the spider to use.

The "many legs" itself is a trait common to both spiders and scorpions, and obviously can't be used for that. And covered with hair and carapace are conflicting elements and cannot be possessed at the same time. But a hair-covered scorpion didn't seem to fit well with my design concept, and it seemed too instantly recognizable as a real species, so I ruled out the idea of a scorpion as the main body.



After ruling out snakes and scorpions, the only thing I had left was the idea of using spiders. But the elements from the scorpion seem to be easier to use as attachments than those extracted from the spider. The pincers and the tail are elements that can be singled out as distinctive features. And I believe that's why Manticore uses a scorpion tail.

But I'm not going to use tails, although it is more easily recognizable as an element of origin. The reason for this is quite simple: nowadays, when it is still believed that spiders produce their silk from their buttocks, the "tail" seems to be a more recognizable element for others as a buttocks part. And the pincers are in close proximity to the foot and seem to be more discreet.

Therefore, the overall elements of my chimera can be defined, the main body of the spider has the pincers of a scorpion and the upper body of a snake attached from

somewhere but hiding itself. It is different, but like a normal spider, and at first glance, one would think it is normal.



Conclusion

The definition of the Chimera has become broader and broader nowadays, and its position in many works is no longer limited to a horrible monster that brings disaster, but many authors have designed a thought-provoking plot background for its creation.

After researching chimeras and related animals, I¹⁵ had a general idea of what I wanted to do with my chimera. During the Christmas holidays, I will continue to refine my current design ideas and create visuals for them. Such as a 2D view of the character, or even a 3D model of the character. I believe that the finished product that I will present later will be a better representation of my research results.

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