We've seen numerous species encountered throughout the voyages undertaken by the ships and the missions led by the various officers and crew of Starfleet. In fact, in almost 250 years of visiting the worlds and the galaxy that have become a home away from home for us, we've encountered and catalogued more than 800 species (that we've counted), ranging from very humanesque aliens sometimes characterized by nothing more than a different skin pigmentation or a "random forehead of the week" to species (like Species 8472 and the Caretaker from *Star Trek: Voyager*) that are so alien that it often defies logic how so many species can exist that look so much alike or that look so different that one can envision how they even came to being.

We often think of the sentient races we encounter by the fact that everyone seems to speak the same language, many aliens are more or less humanoid, and we can identify with some characteristic that seems derived from our own internal personality, our dreams, and our flaws. The truth, however, is that with the countless number of stars in the universe, and the likely percentage of those with habitable planets, and the percentage of those with sentient life that has evolved to the point that we can relate to them in some way, we have enough "raw data" and enough differences to explore that we can, in fact, create an entire science of the study of sentient alien species. In this article, the reader will be introduced to the "Xenological Sciences" and perhaps spark some interest in the alien species we have encountered in just a little different way than we are used to.

First, let's define some terms that describe the science behind the study of sentient life:

- First, the generic term *xenology* we will use to describe the general science of the study of something alien;

- then, the term *xenobiology* which we will use to describe, more specifically, the study of alien life forms;

- the term *anthropology* of course describes 'the science of human beings and especially of their physical characteristics, their origin and the distribution of races, their environment and social relations, and their culture' [*Merriam-Webster Dictionary*]

- the term *xenoanthropology* (a term used in STARFLEET's Academy, among other places) to describe "the science of alien beings and especially of their physical characteristics, origin, and distribution of races, etc." and finally,

- the term *xenoarchaeology* which is perhaps the most specific form of this genre of scientific study, which includes the physical, biological, and anthropological studies described, and in addition, includes the historical and archaeological relationships within and between species and the *taxonomy* (classification according to natural relationship) of the species described.

Xenoarchaeology and to a lesser extent Xenoanthropology are of interest because they include in their definitions both the physical study and what we can envision as the cultural, social, and psychological and philosophical study of the aliens catalogued. The attempt with these areas of study is to make some connection between the modern species we know and their ancestors. These sciences use modern tools (here, "modern" refers, of course, to the 24th century devices such as scanners and advanced computing machines) and the "contemporary" tools (good old fashioned picks and shovels work) as well as a lot of deductive reasoning and solid scientific hypothesis to come to some conclusion about how the modern species developed and how, perhaps, they relate to each other.
We've seen hints of these sciences, of course, in the missions undertaken by the various crews of the various starships - the ones that come most rapidly to mind, of course, are Stardate 46731.5 [Star Trek: The Next Generation episode "The Chase"] which introduces the concept of a common origin/seeding of humanoid genetic material by a protohumanoid species; Stardate 42609.1 [Star Trek: The Next Generation episode "Contagion"] which introduces the concept of commonality between a variety of languages across several worlds that bear resemblance to the ancient Iconians; and USS Voyager's encounter with the Voth and the introduction of the concept of Distant Origin Theory [Star Trek: Voyager episode "Distant Origin"]. These are unique glimpses into the nature, origins, and connections between species that are quite different from the daily interactions we see in 'modern' day since they deal with the past as much as with the present.

The fascination for the xenoarchaeologist/xenoanthropologist lies in making these connections and asking questions such as:

- Is there a reason for why so many humanoids from so many distant worlds look so strikingly similar?
- Is there a reason that we see the random similarity in forehead anatomy as we encounter each species?
- Is there a biological or an environmental element to the way modern Vulcans and Romulans differ?
- Is there a relationship between the Voth and other reptilian species that may have developed according to the guidelines of Distant Origin Theory?
- Is there some common physiology to species that aren't humanoid?

The reward comes, of course, from answering these questions. Generally, this involves a great deal of research. Just as the archaeologist on Earth digs through the layers of sediment to uncover the skeletal remains of the dinosaurs, for example, the xenoarchaeologist/xenoanthropologist digs through the physical layers on countless worlds as well as the layers of those characteristics common to many species - the scientist looks at the humanoid species, the 'topography' of their faces, the similarities in physical form, language, culture, and even technology, and their culture and history and catalogues similarities using the characteristics of the modern species to describe how physiology (that is, biological and physical form and function) translates to the ridges, bumps, depressions, gills, membranes, and all the other "body parts" that we see from encounter to encounter.

The xenoarchaeologist/xenoanthropologist also recognizes the advantage of using modern tools, and more importantly the countless volumes of information already present that describe the many sentient species. Creating a library for future use and study is as important as the study itself. The hope then is that this article will introduce the reader to and spark interest in the sources of information that pertain to the science of xenology.

Recommended sources include:
- STARFLEET Academy's courses in XenoAnthropology and Delta Quadrant Studies
- STARFLEET MARINE CORPS' courses in Xeno Studies

A variety of sources available in cyberspace - accurate and thorough sources include:
- Star Trek Supplement: Races of the Star Trek Universe, [http://members.aol.com/jgary763/racesindex.html](http://members.aol.com/jgary763/racesindex.html)

These sources as well as The Xenoarchaeologist articles can be accessed online at [http://www.angelfire.com/nc2/sardis/the_xenoarchaeologist.html](http://www.angelfire.com/nc2/sardis/the_xenoarchaeologist.html)

Finally, to spark the interest of the reader, we introduce a quiz of sorts and encourage the reader to study these species to better understand the relationships [hint: the answers to these questions can be found in one or more of the sources described above - it's left to the reader to answer these questions for himself/herself, of course]:
1. What is the relationship between these reptilian species - Voth, Gwy, Hirogen, Jem'Hadar, Tosk, Gorn, Kasheeta, Lethean, Kolaran, Saurian, Selay, Vaadwuar, Celan?

2. Who are the Galenans [(c)2004 by Allyson Dyar] and how is the position of the Galenan Regent determined?

3. What similarity exists between the Shar'NN [(c) 2000 by David Klingman] and the Idjalich [(c) 2000 by David Klingman]?

4. What is the glabella, and how does it relate to physiology of species like the Klingons versus Bajorans?

5. Is there a biological reason/similarity between Ferengi and Dopterians that makes them "immune" the telepathic and empathic skills of Vulcans and Betazoids?