



# The Knife

Utility  
Constraints  
Affordances  
History  
Artivive





Home

# Utility



The knife's utility is to cut and divide things, however its use can be on different mediums. It is necessary to use a form of the knife to make anything in life, from opening boxes, cutting building materials, used in surgery or really shaping anything into a desired form. In its most domestic form ads shown in the picture, it is used for cooking and eating



# Constraints

Home



The constraints on knives include its ability to become blunt through wearing down through use and time, thus removing its ability to divide things. This can be solved through sharpening it. The blade without the handle would create the constraint of discomfort in holding it, however the handle solves this issue. The material the knife is made out of can be metal, porcelain or even plastic. The different materials determine how sharp the knife can be and therefore its cutting ability. The cooking knife is typically made out of metal, which is easily sterilized. After some use it becomes blunt however it can be sharpened.

Due to its sharpness, knives and like objects have been associated with danger and pain. Humans have developed the cultural constraint to be careful around knives, handle them with care, do not allow children near them and to generally be cautious as they easily can cause harm. Using them as a weapon is now regarded as unacceptable and only acceptable function is as an aid to daily tasks.



# Affordances

[Home](#)

The knife is used for slicing and cutting things. This is its affordance and is easily recognized by its extremely sharp edge. The metal material gives it a harsh and stable impression, allowing the user to know it will not break from using it. It gives the impression of strength. From this, we know its intention is to cut and divide things as it is stronger than most other materials. The jagged edge on the blade itself shows that this side is the one that will be used to slice any material. The other side of the blade is blunt and straight, thus preventing the function of cutting. The tip shows where the most force can be built up and therefore its sharpest point.

Additionally, the difference between incredibly sharp edge and the smooth handle, shows where the knife should be held. You use the knife with your hands. The blade is sharp and could be harmful to touch therefore, it is designed with a handle piece for comfort. The handle piece is made of smooth plastic that allows comfort for the user. This drastically opposes the sharpness of the blade itself. The black color further highlights where the sharp blade ends, and the smooth handle starts. The top of the handle connects at a right angle with the blade, creating a clear barrier to protect the user from the sharp knife. It is shaped to fit perfectly in the grip of the hand, easy to hold and maneuver. The handle is a cylinder shape, to easily allow the grip of the hand to form around it.

Knives are used in everyday life and must be convenient and simple to use. They are light and slender, so that it can align with the movement of the hand. Its sleek and slim design make it easy to store.



# History



Knives originated as early as 2.6 million years ago; however, they were found in different materials and in a less sleek form. These ancient knives were found in the form of sharp stones, teeth or bones that had a blade like edge. In times of cavemen, these sharp stones were attached on the top of long wood poles to create a spear like weapon for hunting and fishing.

As humanity developed and metals were able to be extracted and shaped, the knife was made from these more durable materials. The early metals such as copper, bronze and tin were not as sharp as the original stone blades and lost their ability to cut easily as they were worn down through use over time. This causes the need for sharpening stones to restore their fine point.

3600 years ago, humans developed the ability to extract iron core and started making knives from the material. Iron is durable and also keeps sharpness better than the other metals. The alloy steel proved to be the most effective material and today the majority of knives are still made from it.

Knives have developed into different sizes, with larger ones, such as swords were used as a weapon and are often seen today as a medium of violence. In 1669, King Louis XIV of France placed a ban on the use of knives in an effort to reduce violence. Today the knife has many uses ranging from cutlery, weapon, medical aid, and for anything that requires a sharp edge.

Home

# Artivive

Home

Knife in  
its natural  
environment

Knife in  
a public  
environment

Utility

Constraints

Affordances

History



# Knife in its natural environment

Home



ARTIVIVE

EDIT PROJECT The Kitchen HOME ARTWORK INFO 68 BASIC 3D / PRO

create beautiful artworks and follow us on youtube [view tutorial]

Drop image here or SELECT FILE

LAYER 1 - IMAGE ADD IMAGE (1/6) ADD VIDEO (0/3)

LAYER 1 - IMAGE

Drop image here or SELECT FILE

Position: 46.93 -47.38 Rotation: 176.9 ° -4.01

CANCEL CHANGE

Screenshot of the Artivive software interface showing a 3D model of a kitchen scene. A knife is placed on top of the yellow cutting board. The software's interface includes various tools and a preview window.

ARTIVIVE

EDIT PROJECT The Kitchen HOME ARTWORK INFO 68 BASIC 3D / PRO

create beautiful artworks and follow us on youtube [view tutorial]

Drop image here or SELECT FILE

LAYER 1 - IMAGE ADD IMAGE (1/6) ADD VIDEO (0/3)

LAYER 1 - IMAGE

Drop image here or SELECT FILE

Position: 46.93 -47.38 Rotation: 175.9 ° -4.01

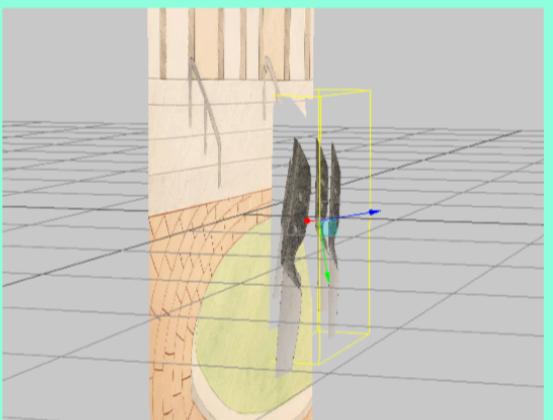
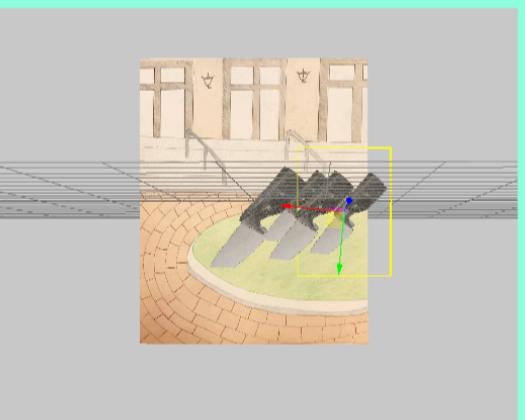
CANCEL CHANGE

Screenshot of the Artivive software interface showing the same 3D model as the previous screenshot, but with the knife moved further forward in front of the camera, creating a sense of depth.

The knife is typically found in the kitchen. It is placed specifically on top of the cutting board where it would be used. When scanning the picture found on the left in Artivive, the knife appears. It is placed further in front of the canvas in order to create the feeling that it stands out and you can clearly see what was added to the picture.



# Knife in a public environment

[Home](#)

Knives were placed into the grass of Krentzman quad giving the appearance that the graph is a knife block. I wanted to create a sculpture which turns a public space into a commonly found household item to go along with the knives. The knives were placed at different depths against the canvas in order to create a three dimensional impression.