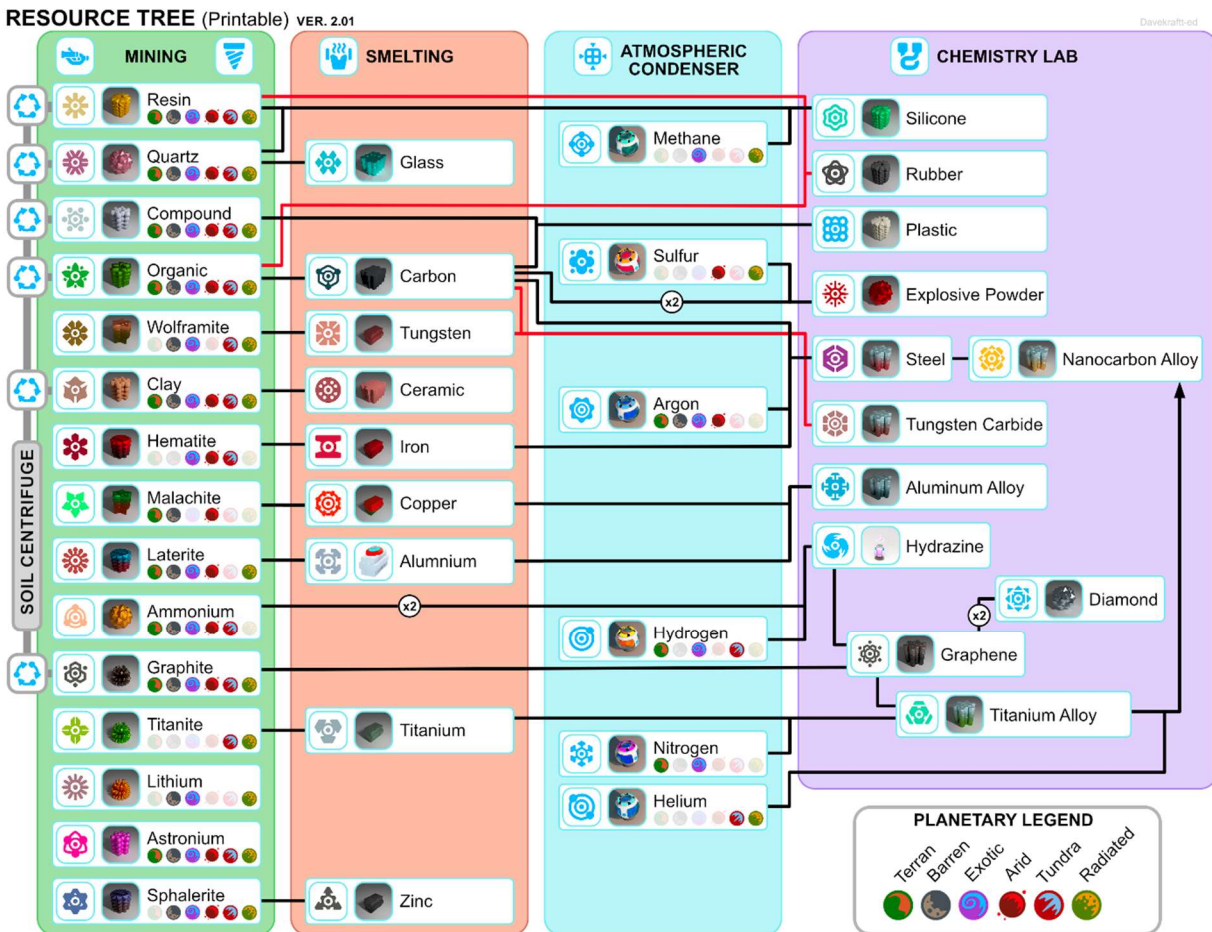


Design of Resources in Astroneer

Victor Shu

Astroneer (Early Access, 2019, System Era) is a space-themed exploration & survival-crafting game¹. This critique will mainly focus on the design of the resources the player will use to survive and craft things in the game. If not mentioned, the version of the game will be 0.10.1, which is also called as "Crafting Update", or later ones, since the game is still in early access and the developers are continually adding new features and stuff to the game.

To start with, here is a map of dependencies of all resources in the game². The image is meant for the 0.10.5 version, which is the latest version, but there's no change in resources since 0.10.1.



Before the Crafting Update, there have been feedback and critiques about the game being too easy, and the things in the game are too few. This is true to some extent. The type of resources at that time was only a quarter of the present, and all resources but Titanium can be found on the

¹ https://astroneer.gamepedia.com/Astroneer_Wiki

² <https://astroneer.gamepedia.com/Resources>

Terran planet, which is the first planet the players will visit. After the Crafting Update, the type of resources was increased explosively, and the dependencies became much more complicated. There are several pros and cons of the design of resources in my opinion.

1. Increase the play time.

Before the Crafting Update, it only took me 2 hours to collect enough resources and built a fuel condenser and a trading platform. With these two platforms, one can literally farm resources infinitely, including the Titanium which one cannot get from Terran. After several updates, the developers changed the trading platform so that Hydrazine cannot be traded, but this still didn't make the game harder. After about 5 hours on one saving data, I started to get tired since I basically have everything. I will create a new saving data and play from the beginning about every 10 hours.

However, after the Crafting Update, it became a completely different story. There is no way of farming resources infinitely, at least not so obvious. Building some platforms require some rarer resources or those do not exist on Terran. The progress of the game is now limited by the dependencies shown in the image above. One cannot build some platform for crafting some rare resources, but that platform may require resources that only exist on other planets. This extends the play time very effectively.

2. Encourage/force the player to explore

As I mentioned above, there are some resources that one cannot get on the original planet Terran, which requires the player to get to other planets. To achieve this, the player must build a vehicle bay and a space shuttle. And that requires some available but rare resources on Terran. So, the player has to travel around the Terran and gather rare resources.

In older versions, players can get every kind of resources on Terran, including the Titanium, if they choose to use the trading platform. Thus, players do not have to visit other planets. Players who are self-motivated or tired of farming resources might do this, but the game did not force one to visit other planets. After the Crafting Update, however, one cannot get all things they need to build stuff. They are encouraged/forced to build a space shuttle and travel to another planet.

However, the way one can get to another planet for the first time is not well designed. The resources players can get on Terran only allow them to build the basic space shuttle which can only fit one person and no other things, and they can only build thrusters with solid fuel which can only be used once. If players failed to realize this and they just rushed into space, they will find themselves stranded on a new planet. They have to start from the very beginning, gathering resources and building platforms.

If the developers do not make some change on this, there will be arguments about whether the design of the resources and the crafting dependencies is a good one. On the one hand, this design encourages the player to explore; on the other hand, it forces the player to play with a fixed route.

3. Make things complicated

Before 0.10.1, when I was playing the game, I can figure out how to craft things very quickly. After the Crafting Update, I have to have the image shown above opened somewhere, and I need to refer to it often, since the crafting dependencies are too complicated, and there is no in-game tutorial or hint about how to craft steel.

Relatively speaking, there are not many types of resources, and the crafting dependencies are rather simple, compared with games like Minecraft. However, there are differences between Minecraft and Astroneer.

The first thing is that the crafting receipts in Minecraft are more intuitive than the ones in Astroneer. This is a thing that can't be changed due to the difference in background setting between Astroneer and Minecraft.

Another thing is that the order of presenting resources is different. In Minecraft, a player new to it can only see things on the surface like trees and dirt. They can get wood from trees and find out that they can build some wooden tools. After that, they can get rocks more efficiently and make some stone tools, and then the steel ones. After they have better tools, they can mine deeper or go further. And finally, they can get diamonds, and make many other fancy things. They will not know there are such things until they get the ability to get them. However, in Astroneer, the player know they can build large rovers and spaceships at the very beginning since they are right there in the research panel. They will find out that, if they want to build a large spaceship, they will need some resources, but the resources cannot be obtained on Terran, so they have to build a smaller one first. Alternatively, if they want to craft some resources like steel, they will need a chemistry lab, which requires some other resources, which requires some other platforms. The order for players to recognize the world is completely different, which makes players, at least me, feel that it is so complicated that they have to refer to some wiki pages.

To summarize this, Astroneer has a decent design of resources and crafting system. It can prevent players from being bored, but it needs more flexibility. As a game which let players create contents, though very hard, I hope it can become a space-themed Minecraft one day.