



Early Pyrotechnology



1. Simple Uses of Fire

The Many Uses of Fire

- Here we [go again](#): Who lit the first fire, where and when? We certainly don't know. All we know is that it was a long, long time ago. Definitely 125 000 years ago, possibly 400 000 years ago, maybe - but probably not - more than 1.7 million years ago. Neanderthals used fire and so did other old branches of humanity that are now extinct.
- Humans made fire, and fire made humans one could say. Eating meat provides proteins and energy (fat) in concentrated form and saves you a lot of time otherwise needed for gathering and eating lots of plants. Eating cooked or generally *heat-processed* meat is even better. It's easier to digest, healthier (bacteria are killed), better tasting, and longer viable; especially if you smoke it a bit. Protohumans turned gradually into meat eaters, and control of fire was vital in this process. They also had more time now to invent other useful things and techniques as well as to kill (and possibly eat) each other.

So *cooking* with fire and heat comes among the very first and most important uses of pyrotechnology?

- Maybe not. Just *keeping warm* might have been just as important during the very early times. If you can heat your cave, you can live in latitudes that would otherwise be uninhabitable. Why would you want to do that in the first place? Because that's where all the good things are - in the summer. Then you have rain and thus lush meadows and forests, providing vegetarian food, and lots of animals that eat the plants, and they are food, too. The lakes and oceans provide fish aplenty. It is far better than the deserts and scorched pastures in the hot south. In the winter, however, you freeze to death if you can't provide warmth. You just need to always watch out for those animals that like to eat you.
- Watching out is easier if you can *see* something. At night, a fire provides *light* and let's you see. Moreover, the grumpy cave bear you shared your home with in the dark ages hates fire and moved out. A fire light (torch or oil lamp) also allowed you to go deeper into the cave where your mommy couldn't find you, making out with the girl friend and smearing graffiti all over the walls.



Oil lamp from the Lascaux caves; ca. 17 000 years old

Source: Sémhur / Wikimedia Commons / CC-BY-3.0

- The bear moved out of your fire-lit cave but that well-endowed blonde from down the ravine moved in. Stone-age woman liked to run around naked, it seems - none of those stone age [beauties](#) wears any recognizable garment. On second thoughts, maybe it was just stone-age man who liked to see her naked. In any case, a [cozy fire](#) (and possibly a rug from the former cave bear) is not to be sneered at for occasional trysts involving nakedness.



Cave bear, roughly twice as tall as you, about to outen your light.

Source: Photographed in the National History Museum, NYC.

- With fire you could also do more doubtful deeds, like setting the bush ablaze for driving, killing and roasting some animals (and yourself, if you weren't careful).

It only remains to make and maintain a fire with nothing but stone-age tools.

Making and Maintaining a Fire

Stranded on that lonely island with nothing but your smart-phone on your body - can you make a fire? Don't call me. I know the theory, of course, but I also know it won't be easy.

- You can rub these sticks or bang the flintstone until the cave bear, resenting the noise, has eaten you. It's the right thing to do but it ain't all that easy.

It can be done, however, and some outdoorsy people can do it even today. The rest then is easy. Just keep it burning, and if it goes out, start it again. The important part now is to think about inventing beer and the refrigerator.

That was the easy part of making and maintaining a fire. The tricky part was to keep your spouse (who never in a million years would learn how to make fire) from badgering you all the time about getting those ashes out of the cave and bringing fresh wood in. She also wants you now to wash your hands all the time, because maintaining that fire tends to make them black.

- Nothing helps but to invent electricity. Get to it.