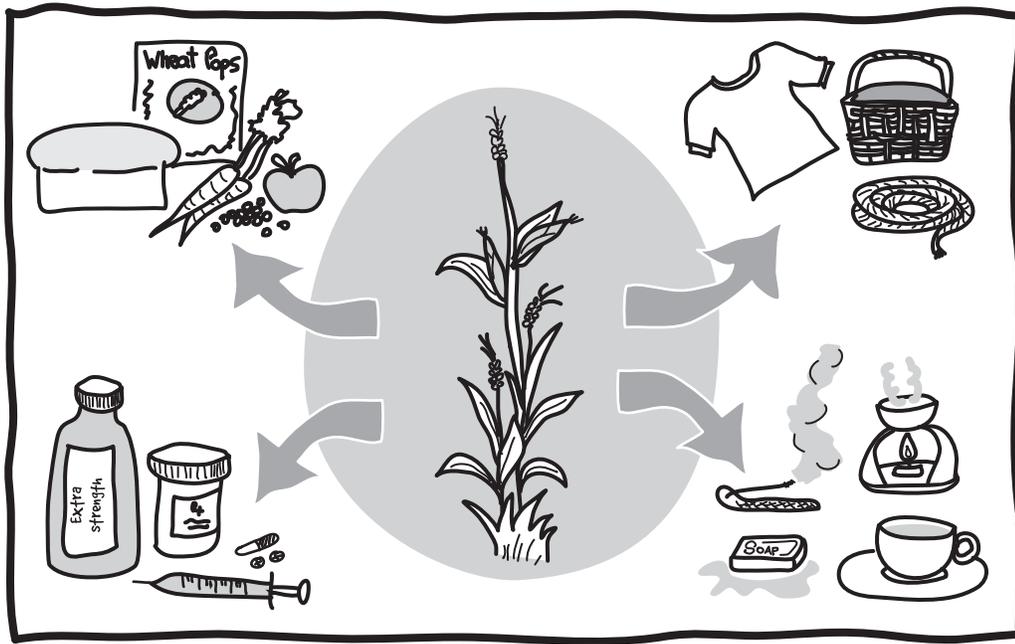


# Ancient Peoples & Psychoactive Plants



## Early humans and the earth

Like modern humans, early humans had a range of built-in desires—a desire to live in groups, a desire for fun or relief from daily struggles, and a desire to understand and prosper in the afterlife.

Early humans also had similar physical traits and body systems. The human body, in ancient times and today, is designed to ensure we satisfy our basic needs—sleep, water, food, sex—so we can both stay alive and welcome new humans into the world. Our brains and bodies release chemicals that make us feel good when we rest, eat a meal and so on in order to motivate us to continue wanting to meet our basic needs.

Our natural environment—the earth—seems to be designed to help humans (and other living beings) survive. After all, the

world is full of plants that contain nutrients our bodies require to live healthful lives (think raw fruits and vegetables).

The earth is also full of plants that contain **psychoactive drugs** that can help us both heal from disease or injury and enhance the release of feel-good chemicals in our bodies. That said, psychoactive drugs—if used too much or too often or in other risky ways—can also lead to health, relationship, money and other problems.

Many native plants, such as the cacao tree (think chocolate bar or hot cocoa), contain both nutrients and psychoactive substances. And some plants are multi-purpose. Hemp, for example, is nutritional, medicinal and can be used to make industrial items such as cloth and rope.



**Psychoactive** drugs (aka mind-altering drugs) act on our central nervous system and change the way we think, feel or act. Caffeine is an example of a psychoactive drug used in both ancient and modern times.

Caffeine, found in coffee and tea, is a **stimulant** drug that increases our heart rate and breathing to make us feel more lively and alert.

**Depressant** drugs such as alcohol and heroin slow down our heart rate, breathing and ability to think, talk and move.

**Hallucinogenic** drugs such as “magic mushrooms” and ayahuasca change the way we see, hear, smell, taste, feel and think about the things around us.

Note: Cannabis and some other drugs fit into several drug categories.

Our early ancestors had complex relationships with psychoactive plants. People roamed the earth in small groups of hunters and gatherers. Typically, the women were responsible for foraging the forests and fields for plant foods—nuts, seeds, fruits, vegetables, mushrooms, and so on—and

using them to prepare meals. Over time, they learned to identify which plants could be used as food, which ones were medicine, and which ones were harmful or even fatal. Some of the most helpful plants were also the most risky to use.



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People like to label plants as poisonous or medicinal (or simply “dangerous,” as in the case of plants that produce a “high” feeling). But we have known for centuries that our labels often refer to the amount of the plant we use. As Swiss physician and botanist Paracelsus wrote in the 1500’s:

“Poison is in everything, and no thing is without poison.  
The dosage makes it either a poison or a remedy.”

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### **i** Did you know?

Early humans who travelled over the frozen Bering Strait to North and South America used fly agaric, a hallucinogenic mushroom.

Early humans also learned—in a process sometimes leading to injury or death—that many plants, used in specific ways and in certain amounts, could help them reach altered states of consciousness or explore the spirit world. Many of these psychoactive plants were woven into early healing practices, cultural and religious rituals, and daily routines to bring temporary but necessary bursts of peace or joy.

# MesoAmerica

Early hunters and gatherers reached MesoAmerica around 11,000 BCE. But it would take another 10,000 years before they would change their lifestyle and stop moving around.

The first settlers were likely the Olmec people, who set up small villages along today's Gulf Coast of Mexico. Among the plants the Olmec learned how to cultivate was cacao (also known as cocoa, the primary ingredient in chocolate). For the Olmec—and for the Aztecs, Mayans and others in the region who learned how to cultivate cacao—the plant was a gift from the gods and as such played a key role in religious rituals and burial practices.



In ancient times, cacao was prepared as a beverage. While it was occasionally given to people who were sacrificed in religious rituals (often the healthiest of the young men), cacao was consumed primarily by adult males of high status—priests, high government officials, military officers and war heroes. A Spanish officer who participated in the conquest of the Aztec capital (today's Mexico City) in the 1500's CE said cacao was sipped all day long by the most important person in the empire, King Montezuma.



**Tulum, an ancient Mayan fortified city on the Yucatan Peninsula in Mexico**

Cacao seeds (often called “beans”) were used as coins. They were also eaten or ground into a powder and mixed with water and other plant materials for various health and healing purposes. Cacao was used to reduce fevers, relieve coughs, and promote weight gain, among many other uses. Without surprise, chocolate was among the key trade items at the main Aztec market.

While cacao was an important element of the ancient Aztec diet and medical system, using it safely required some understanding of the four varieties of plant and the proper preparation and application of their seeds. Records of ancient Aztec medical practices, described in the famous Florentine Codex, warn cacao users about the potentially negative effects of drinking too much of a particular seed.

“[Green cacao] makes one drunk, takes effect on one, makes one dizzy, confuses one, makes one sick, deranges one. When an ordinary amount is drunk, it gladdens one, refreshes one, consoles one, invigorates one.”

# Early South America



A coca leaf

The Incas of Bolivia, Peru and Ecuador cultivated coca, a hardy, mountain plant that needed no irrigation. It also resisted both drought and disease, and could be harvested three times a year.

The Incas and others chewed the coca leaves with a lime paste. The combination released psychoactive chemicals that relieved hunger, thirst and fatigue. One anthropologist who has worked among coca growers in Bolivia said coca chewing was similar in effect to drinking a strong cup of coffee.

By the time the Spanish invaded in the 1500's CE, coca was deemed sacred and was used in various rituals. When the Spanish conquerors learned that coca could increase a person's work capacity, they made their Incan slaves use it while mining gold for their captors.



## Did you know?

The people of the Inca Empire did not have the wheel. Yet they maintained a complex network of paved roads and rest areas to transport trade goods, slaves, messages and warriors from place to place. Instead of using carts to move products and people around the empire, the Inca travelled on foot, shipping plant foods and medicines, among other prized items, on the backs of llamas and human porters.



**Dried tobacco leaves**

**Tobacco** is another plant that was native to South America (Peru and Ecuador) and first cultivated by the Incas more than 5000 years ago.

Tobacco was used in many ways—snorted, smoked, chewed, eaten, and so on—for various medical purposes. For example, its leaves could be packed on a tooth to relieve a toothache, and its juice could be applied to the skin to treat a snake bite or get rid of parasites. Tobacco was also used to treat serious illnesses, including cancer.

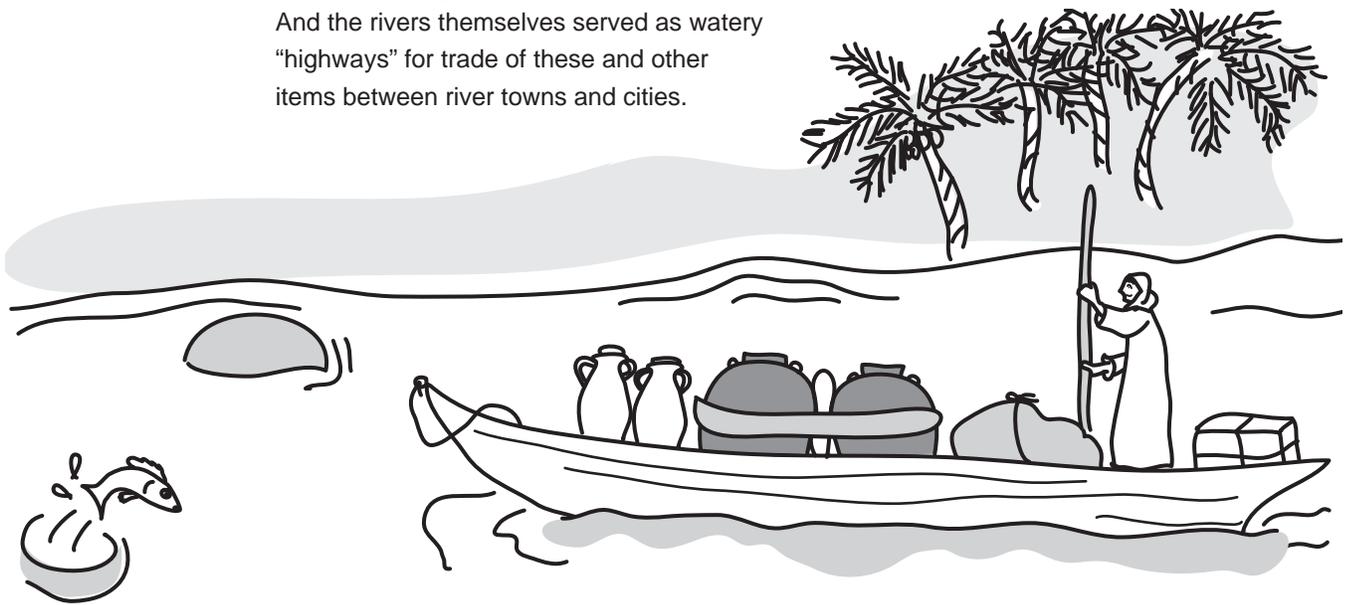
Over time, ancient groups throughout North and South America used tobacco as sacred offerings to their gods and in ceremonies and rituals. For example, tobacco smoke was blown into warriors' faces before battle, and blown over fields before planting. Tobacco was given as gifts or peace offerings in informal and formal ceremonies, including those involving the slaying and sacrifice of slaves or captives.

Ancient healers—called shamans—used large amounts of different types of tobacco to induce visions and explore the spirit world. Sometimes healers (and healers-in-training) consumed too much tobacco—and therefore too much of the psychoactive drug called nicotine—and died, unable to make it back out of the spirit world.

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# Mesopotamia

In ancient times, the fertile land along the Tigris and Euphrates rivers was ideal for growing a variety of fruits and grains, including barley, dates, grapes, figs and sesame seeds. And the rivers themselves served as watery “highways” for trade of these and other items between river towns and cities.



Alcohol was one of the many products both made and traded in ancient Mesopotamia. More than 5000 years ago, people who lived there were drinking date wine and barley beer. But it was not like the beer we have today. It contained cereal grains and other debris, so people used drinking straws as a kind of filter.



People drinking beer through straws

Among the earliest written documents ever found are Sumerian wage lists and tax receipts from 3400 BCE. The symbol for beer—a vessel with diagonal line drawn inside it—is one of the most common words (along with symbols for grain, textiles and livestock). These items were collected by priests of cities and used to pay for communal projects, such as building irrigation systems and public buildings.

Wine use in the lowland areas of Mesopotamia was limited at first. Wine had to be imported from the mountainous grape-growing lands, which made it more expensive to buy than beer. Seen as an exotic foreign drink, wine was mainly used for religious reasons. Only the elite could afford to buy it. Only royalty could afford to share it.

At a royal feast in 870 BCE, Assyria's King Ashurnasirpal II is said to have sipped wine from a gold bowl and served 10,000 skins of wine and 10,000 jars of beer to his guests.

# Egypt and other parts of Africa

In ancient Egypt, alcohol played a key part in both the afterlife and daily life. The Egyptians believed that well-being in the afterlife depended on having an adequate supply of bread and beer. Egyptian King Tutankhamun, who died around 1335 BCE, was buried with special sieves for making beer, and Egyptian King Scorpion I was buried with 700 jars of imported beer. Ordinary ancient Egyptians were buried with small jars of beer.

The link between beer and the afterlife is seen in the story of Osiris, the god of agriculture and king of the afterlife who accidentally discovered alcohol. According to legend, one day Osiris prepared a mixture of water and sprouted grain. But he soon forgot about it and left it in the sun. When he returned later on he found the gruel was fizzy. It had fermented, which means air reacted with the sugar in the gruel and turned it into alcohol. Osiris drank it and liked it so much that he passed his knowledge of the new drink on to humankind.

Beer was also prized because it was used as a practical replacement for water, which in ancient times was often full of contaminants and unsafe to drink. Because of the way it was processed, Egyptian beer was much weaker than today's beer so drinkers did not get drunk. Most Egyptians strongly disapproved of drunkenness.

Wine was also consumed, mainly by wealthy Egyptians who could afford to either import it or establish their own vineyard on the Nile Delta. But since wine was stronger than beer, the Egyptians added water to weaken it.



**Osiris, god of Agriculture, discovered alcohol by accident**

Many people in ancient Egypt and elsewhere recognized alcohol could also be used as a medicine. For example, beer and wine were used to clean and dress wounds. Small amounts of beer were believed to fight fevers, and hot wine was believed to fight colds.

## Did you know?

Coffee seeds (commonly called beans) contain caffeine, a mild stimulant drug that many people today use to help them wake up and maintain focus during the day.

Coffee trees are native to a country close to Egypt called Ethiopia (the same place from which scientists believe our earliest ancestors originated).

Around 6 CE, coffee trees from the Ethiopian highlands were brought to nearby Arabia and first cultivated for wider consumption.

Coffee seeds were originally used as a food. It was not until the 1500's that the seeds were turned into a beverage. Since then coffee trees have been brought to many areas of the world for cultivation and consumption. And today, not surprisingly, coffee is the most widely used psychoactive drug on earth.

Another medicine recognized for its effectiveness was the opium plant. Early Egyptian medical texts list opium as a sedative used to alleviate pain, abscesses and scalp complaints.

Opium was also used as a means of inducing altered states of consciousness (experiencing the world in a new and very different way).

Opium grows naturally in temperate and sub-tropical regions, and there is evidence to suggest it was first domesticated by west Mediterranean people as early as 6000 BCE. Some scientists claim opium is one of the most important medical plant discoveries on earth. After all, it is used to make morphine and many medications for hospitals and pharmacies. Other people, though, focus on the fact that opium is used to make heroin, a drug which many governments believe carries the highest risk of harm. Today most of the world's opium is grown in Afghanistan, or the northeastern part of the Indus Valley of ancient times.



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### other psychoactive plants in Africa

Two species of cola tree grow naturally in the ancient forests of West Africa. Cola nuts contain caffeine and other stimulants. Cola is one of the only psychoactive substances Muslims can enjoy. (Muslims do not believe in using alcohol and other intoxicants that have the potential to negatively affect the way a person acts or makes decisions.)

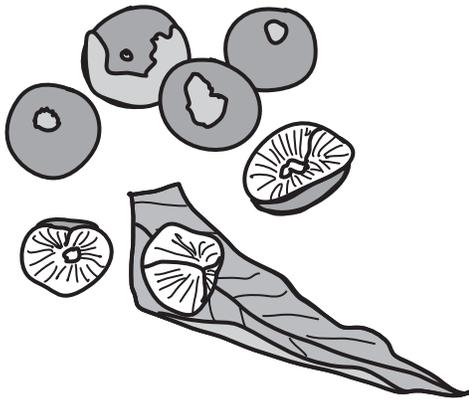
Ancient Africans all across the continent used a variety of other psychoactive plants too, including hemp (also known as cannabis or *marijuana*, the Mexican slang word for hemp). Some researchers believe the habit of smoking cannabis for its euphoric and mind-altering qualities was introduced to the western world by African tribespeople.

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# India and other parts of Southeast Asia

The betel plant originated in India and nearby places in Southeast Asia and Africa. Ancient people added lime to the betel seeds and wrapped them in the plant's leaves before sucking and chewing them.

Betel seeds (often called "betel nuts") carry a stimulant drug that is similar to nicotine in tobacco. Chewing the seeds increases the body's flow of tears, sweat and saliva. It also brings on a feeling of well-being and, like tobacco, suppresses hunger and fatigue.



Betel chewing not only helped people maintain a steady pace during their daily tasks but was also considered a form of pleasure, like eating delicious food or gazing at beautiful flowers. Everyone used it, from powerful emperors to humble workers.

When people chewed betel regularly and did not clean their teeth, the teeth became stained with the juice, and the lime caused tooth decay. In some South Asian societies, having blackened teeth was a symbol of high social status.

Ancient Hindus frowned upon alcohol use, but cannabis use was considered acceptable. Cannabis refers to the leaves and buds of the hemp plant. Ancient Hindus used small amounts for temporary relief from stress, anxiety, boredom and fatigue. It was also used to soothe congestion, fevers, coughs and asthma symptoms. In the *Atharvaveda* (2000-1400 BCE), cannabis is listed as one of five holy plants.



*Bhang* was a hemp drink so sacred among ancient Hindus that it was believed to protect them from evil and bad luck. A combination of cannabis, nuts, milk, sugar and spices, *bhang* was served at weddings to ensure the bride and groom a long, prosperous life together.

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Since the ancient Hindu god Shiva enjoyed using cannabis, it is little wonder that holy men who have devoted their lives to Shiva enjoy it too. Called Sadhus, these holy men own no property and spend their time meditating, doing yoga and smoking large amounts of different forms of cannabis.

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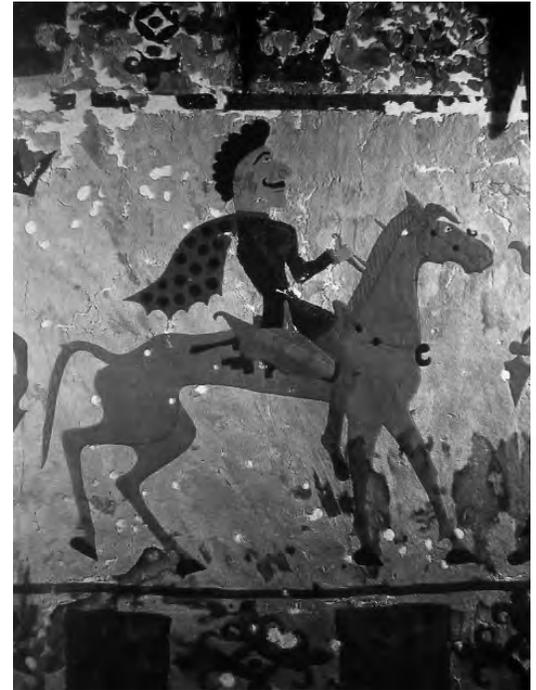
A Hindu god known as Shiva enjoyed using cannabis

Many other ancient societies in Asia and Africa also used hemp for a range of reasons. Most strains of hemp contain very little THC (the short way of saying the chemical that produces euphoria and hallucinations) and were used for fibre to make nets and clothing or seed oil for cooking. But at least some ancient Asians and Africans used the hemp plants with some THC for relief from the everyday world, perhaps like the way so many people today drink alcohol to relax.

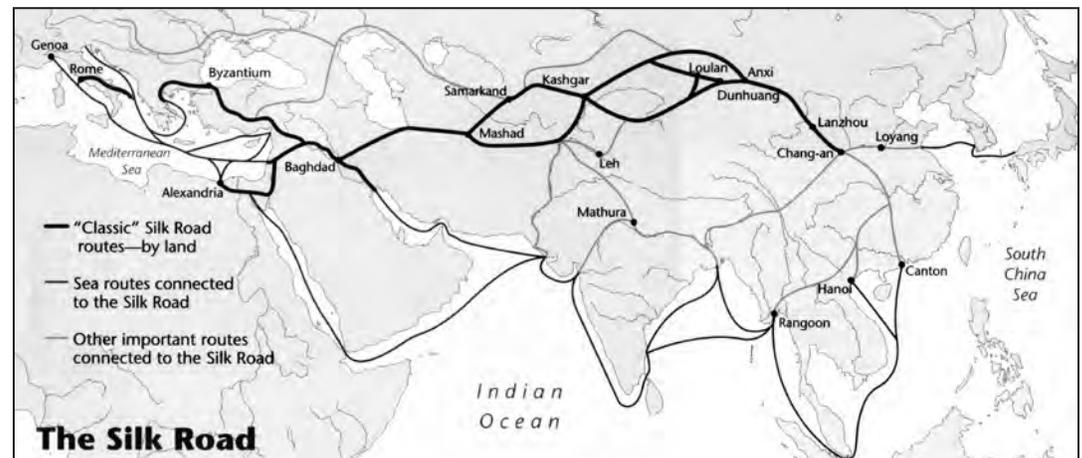
Most researchers agree that the hemp plant itself originated in Scythia (today's Kazakhstan and surrounding areas). As nomadic pastoralists, the Scythians helped bring cannabis to the places in the east and west where they had influence, such as early Greece and eastern Europe.

The Scythians used their horses to transport psychoactive plants and other goods from rest station to rest station over the Pontic Steppes, the great expanse of grasslands that lay between Asia and Europe. While the Scythians are believed to have been roaming the steppes as early as 3000 BCE, they are

most often referred to in the context of trade along the Silk Road, which emerged in a meaningful way during China's Han Dynasty (202 BCE – 220 CE).



Art work depicting a Scythian travelling on horseback



## Silk Road or Hemp Web?

During the Han Dynasty, people, products and ideas trickled and flowed 11,000 kilometres through a web of roads linking China, Persia and the shores of the Mediterranean Sea. This web was recently coined the Silk Road, because silk was a main export from China. But it could have just as easily been called Hemp Web. Hemp-based materials and items were key exports from China. Hemp fibre was used to make rope, cloth and shoes. In 100 BCE, the Chinese began using hemp to make paper money.

# China

For thousands of years, the hemp plant has been widely used in China to both make things and cure things. In fact, some researchers point to archaeological evidence suggesting that the Chinese in Taiwan have been using hemp for different purposes for 10,000 years, longer than any other group of people.

In ancient times, Chinese people added small amounts of cannabis to boiling water to make a tea that addressed a range of diseases, including gout, malaria and rheumatism. They knew that using large amounts led to intoxication and sometimes scary hallucinations. In fact, traditional healers in China and elsewhere relied on the mood-altering effects of hemp, among other plants, for their healing ceremonies and rituals.



## Yellow Emperor on alcohol

While a few people may have used too much cannabis too often, a great many ancient Chinese people used too much alcohol too often. It was even talked about in mythology. According to Huangdi (aka the Yellow Emperor), who reigned from 2697–2597 BCE:

“Nowadays people use wine as a beverage and they adopt recklessness as usual behaviour. They enter the chamber of love in an intoxicated condition; their passions exhaust their vital forces; their cravings dissipate their essence; they do not know how to find contentment with themselves; they are not skilled in the control of their spirits. They devote all their attention to the amusement of their minds, thus cutting themselves off from the joys of long life. Their rising and retiring is without regularity.”

# Greece

## Did you know?

A popular drinking game in ancient Greece was called *kottabos*. It involved flicking the last remaining drops of wine from your cup at a specific target. They even built special rooms to play it in. But some people were concerned that young men were spending too much time trying to improve their *kottabos* performance rather than their javelin throwing, which they needed for hunting and in war.

For many people in ancient Greece, daily life involved transporting, trading, making or using alcohol.

Wine was one of ancient Greece's main exports. For this reason vineyards were prime targets during the Peloponnesian War between Athens and Sparta. In 424 BCE, Spartan troops arrived in the wine-producing city of Acanthus just before harvest time. Their threat to destroy the harvest led the Acanthians to change allegiances so the harvest would not be affected.

By 5 BCE, Greek wine was exported by sea as far away as southern France to the west, Egypt to the south, the Crimean Peninsula to the east, and the Danube to the north.

Alcohol was also consumed by Greeks themselves. For example, at special gatherings called symposia, men met to drink and talk. But there were rules. Knowing that alcohol could bring out anti-social behaviours, the symposiarch (or king of the party) would monitor the participants to make sure they did not drink too much. Young men learned how to enjoy the night without losing themselves in human extremes—anger, love, pride, ignorance, greed and cowardice.

In a book called *Laws*, Greek philosopher Plato argued that drinking with someone at a symposium was the simplest, fastest and most reliable test of someone's character. Other philosophers focused on the way wine uncovered philosophical truths. Eratosthenes (3rd century BCE), for example, said "Wine reveals what is hidden."

The ancient Greeks typically drank wine mixed with water, served in large urn-shaped bowls called *kraters*. To further weaken the effects of wine and avoid getting drunk, they ate food before or while drinking. Still, some people drank heavily, and in some cases it claimed their lives. Reports of a drinking contest in 3 BCE revealed that 41 contestants died of alcohol poisoning. The winner took home prizes, including more wine, but he lived only four more days.



Wine boy at a symposium

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This passage from a play written by Eubulus in the fourth century BCE sums up the good, bad and ugly sides of ancient alcohol use:

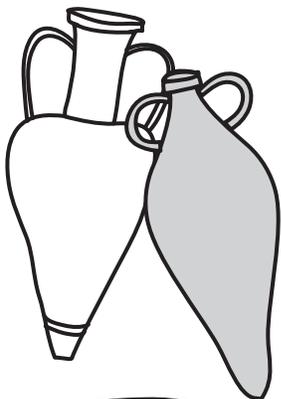
"For sensible men I prepare only three kraters: one for health, which they drink first, the second for love and pleasure, and the third for sleep. After the third one is drained, wise men go home. The fourth krater is not mine anymore. It belongs to bad behaviour; the fifth is for shouting; the sixth is for rudeness and insults; the seventh is for fights; the eighth is for breaking the furniture; the ninth is for depression; the tenth is for madness and unconsciousness."

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# Rome

Ancient Romans were greatly influenced by the ancient Greeks. Like the Greeks, for example, many ancient Romans lived lives that involved the transport, trade, manufacture or use of wine.

By around 100 BCE, Rome had caught up to Greece in wine production and trade. Indeed Italy had become the new centre of trade. Italian wine was shipped in large vases called amphorae, travelling as far as the southern Nile and northern India. Slaves, nuts, glassware, perfumes and various luxury items were among the items transported abroad at the same time.



Bacchus, Roman god of wine

Wine was very popular among Romans and their subjects. Wherever Roman rule extended, people adopted wine drinking, seeming to put aside their beer and other alcohol products.

Throughout ancient Rome, wine was typically bought and sold by the jug from neighbourhood shops. (Wine was also available by amphora for large gatherings or banquets.) Roman households sent slaves with empty jugs to buy wine, or arranged delivery. Wine vendors wheeled wares from house to house on carts.

## Did you know?

At formal Roman gatherings, wine was served according to status. Fine wine was for hosts and friends, second-rate wine was for other guests, and third-rate wine was for former slaves. (Slaves were served *lora*, wine made from soaking and pressing grape skins, seeds and stalks.)

# Reflecting on the past

For thousands of years, humans have been cultivating, trading and using a variety of plants in specific ways and in certain amounts for nutrition and medicine, for facing everyday human challenges, and for help in connecting with the spirit world. And for an equal length of time, human individuals and societies have suffered from negative consequences of psychoactive plant use.

Today we cultivate, trade and use many of the same substances (often in man-made form) for many of the same reasons and sometimes at great cost to our health, relationships, and work performances.

- What do you think are some of the reasons people use drugs today?
- Can you think of any specific benefits and harms to using drugs in modern times?



## Credits

### Text based on research into various sources, including:

Dillinger, T. L., et al. (2000). Food of the Gods: Cure for Humanity? A cultural history of the medicinal and ritual use of chocolate. *Journal of Nutrition*, 130, 2057S-2075S.

Gately, I. (2001). *La diva nicotina: The story of how tobacco seduced the world*. New York: Scribner.

Rudgely, R. (1994). *Essential substances: A cultural history of intoxicants in society*. New York: Kodansha International.

Schultes, R. E. & Hoffman, A. (1992). *Plants of the gods: Their sacred, healing, and hallucinogenic powers*. Rochester, VT: Healing Arts Press.

Tupper, K.W. (2011). Ayahuasca, entheogenic education and public policy. Doctoral thesis. Vancouver: University of British Columbia.

Text compiled and written by Dan Reist, Nicole Bodner and Rielle Capler

Design and drawings by Melany Hallam: maywooddesign.com

### Photos and quotes

#### Early humans and the earth

Paracelsus quote: Paracelsus. (n.d.). BrainyQuote.com. Retrieved September 26, 2011, from BrainyQuote.com Web site: <http://www.brainyquote.com/quotes/quotes/p/paracelsus300347.html>

Mushroom photo: Derek Johnson

#### MesoAmerica

Tulum photo: Derek Johnson

*Florentine Codex*: Bernardino de Sahagún. (1590). The General History of the Things of New Spain.

Map of Inca Trail to Machu Picchu: [http://en.wikipedia.org/wiki/File:Carte\\_Qhapaq\\_Nan.jpg](http://en.wikipedia.org/wiki/File:Carte_Qhapaq_Nan.jpg)

#### Early South America

Coca leaf photo: Agencia Brasil: [http://en.wikipedia.org/wiki/File:Folha\\_de\\_coca.jpg](http://en.wikipedia.org/wiki/File:Folha_de_coca.jpg)

Map of Inca Trail to Machu Picchu: [http://en.wikipedia.org/wiki/File:Carte\\_Qhapaq\\_Nan.jpg](http://en.wikipedia.org/wiki/File:Carte_Qhapaq_Nan.jpg)

Dried tobacco leaves: <http://en.wikipedia.org/wiki/File:DunhillEarlyMorningPipeMurrays.jpg>

#### Mesopotamia

Drinking beer through straw image: <http://www.ifood.tv/blog/how-was-the-ancient-beer-brewing-done>

#### Egypt and other parts of Africa

Osiris image: [http://en.wikipedia.org/wiki/File:Standing\\_Osiris\\_edit1.svg](http://en.wikipedia.org/wiki/File:Standing_Osiris_edit1.svg)

#### India and other parts of Southeast Asia

Shiva photo: [http://en.wikipedia.org/wiki/File:Bangalore\\_Shiva.jpg](http://en.wikipedia.org/wiki/File:Bangalore_Shiva.jpg)

Scythian art: <http://en.wikipedia.org/wiki/File:PazyrikHorseman.JPG>

Silk Road map: *Outlooks 7 Ancient Worlds*.

#### China

Quote from Yellow Emperor: Attributed to official of Huangdi in Classic on Internal Medicine (ancient text dating from at least the 2nd century BCE).

#### Greece

Boy at a symposium image: [http://en.wikipedia.org/wiki/File:Banquet\\_Louvre\\_G133.jpg](http://en.wikipedia.org/wiki/File:Banquet_Louvre_G133.jpg)

Eratosthenes quote: widely attributed to Eratosthenes (about 276 BCE - about 195 BCE).

Eubulus quote: fragment from Greek comic play *Dionysius*.

#### Rome

Bacchus image: <http://en.wikipedia.org/wiki/File:Bacchusbycaravaggio.jpg>