# Session 1

**Drug Use Before Prohibition September 12, 2018** 



<u>Image of Genie before Opium poppy</u> (<a href="https://commons.wikimedia.org/wiki/File:Genie\_poppy\_Dur\_Sharrukin\_Louvre\_AO19869.jpg">https://commons.wikimedia.org/wiki/File:Genie\_poppy\_Dur\_Sharrukin\_Louvre\_AO19869.jpg</a>), from King Sargon's palace, Assyria, 716 B.C.E.

## **Drugs before Prohibition**

Since long before the dawn of recorded history people have used psychoactive drugs. Alcohol was used starting from 7000 BC in China and 6000 BC in the Middle East (https://www.thoughtco.com/history-of-alcohol-a-timeline-170889). Cannabis (aka marijuana) was one of the earliest cultivated plants, with its hemp fibers widely used in China

(http://www.druglibrary.org/Schaffer/hemp/history/first12000/1.htm) and Japan (https://en.wikipedia.org/wiki/Cannabis\_in\_Japan) from 10,000 BC onwards for rope and clothes. The words cannabis and hemp are thought to derive from a proto-Indo European source (https://en.wikipedia.org/wiki/Etymology\_of\_cannabis#Indo-European\_etymologies) from the third millennia BC. Evidence of the use of cannabis as a drug dates from the second millennium BC from the Vedic literature

(https://en.wikipedia.org/wiki/Entheogenic\_use\_of\_cannabis#Ancient\_and\_modern\_India\_and\_Nepal) in India which describe cannabis as one of the "five sacred plants... which release us from anxiety". The Vedas also refer to it as a "source of happiness," "joy-giver" and "liberator," and in the Raja Valabba, the gods send hemp to the human race so that they might attain delight, lose fear and have sexual desires. In 440 BCE, Herodotus (https://en.wikipedia.org/wiki/Entheogenic\_use\_of\_cannabis#Ancient\_Central\_Asia) described the use of cannabis by the Scythians, "They make a booth by fixing in the ground three sticks inclined towards one another, and stretching around them woollen felts, which they arrange so as to fit as close as possible: inside the booth a dish is placed upon the ground, into which they put a number of red-hot stones, and then add some hemp-seed. ... The Scythians, as I said, take some of this hemp-seed, and, creeping under the felt coverings, throw it upon the red-hot stones; immediately it smokes, and gives out such a vapour as no Grecian vapour-bath can exceed; the Scyths, delighted, shout for joy, and this vapour serves them instead of a water-bath; for they never by any chance wash their bodies with water." A recent archeological discovery.

(https://news.nationalgeographic.com/2015/05/150522-scythians-marijuana-bastard-wars-kurgan-archaeology/) confirms Scythian use of cannabis and opium.

Hallucinogenic (https://en.wikipedia.org/wiki/Hallucinogen) drugs derived mostly from plants

(https://www.culturalsurvival.org/publications/cultural-survival-quarterly/hallucinogenic-plants-and-their-use-traditional-societies) have been used by many indigenous cultures over thousands of years. While hallucinogens are often used recreationally in western culture, in indigenous cultures these drugs are often used in religious or spiritual rituals (https://thepsychologist.bps.org.uk/volume-27/edition-9/cultures-chemically-induced-hallucinations) which promote and strengthen tribal customs and beliefs. While use of these drugs in the

west is considered dangerous due to the risk of triggering psychosis, usage in traditional cultures is usually very <a href="mailto:safe">safe</a> <a href="mailto:(http://www.nec.navajo-nsn.gov/Portals/0/NN%20Research/Physical%20Exposure/1971\_%20Navajo%20peyote%20use-its%20apparent%20safety.pdf">safe</a>, due to the positive cultural framework and carefully circumscribed communal rituals.

<u>Tobacco</u> (https://en.wikipedia.org/wiki/History\_of\_tobacco) is another plant with psychoactive properties that was used by Native Americans in rituals. It can be difficult to separate recreational usage from ritual or social usage. The tobacco pipe was used in councils of war and peace, as well as with more mundane tasks. Many Native American cultures had complex cosmologies, where many everyday tasks were imbued with spiritual significance. For example, in 1745 <u>John Bartram</u> (http://www.stogiefresh.info/edutobacco/articles/native-american-tobacco.html) wrote:

As soon as he had killed a bear, the Indian proceeded to make peace with the animal's departed spirit. Placing the stem of his lighted pipe in the dead bear's mouth, the hunter then blew into the pipe bowl. As smoke from the pipe filled the bear's mouth and throat, the hunter begged the bear's departed spirit not to resent the injury done to its body and not to thwart the Indian's good hunting in the future.

The Spanish brought tobacco back to Europe and it quickly became popular, both for smoking as well as snuff taking. While the <a href="tobacco trade">tobacco trade</a> (<a href="https://en.wikipedia.org/wiki/History\_of\_tobacco">(https://en.wikipedia.org/wiki/History\_of\_tobacco</a>) became important economically and helped fuel the slave trade, it was not universally appreciated. England's King James I, in <a href="A Counterblaste to Tobacco">A Counterblaste to Tobacco</a> (<a href="https://www.laits.utexas.edu/poltheory/james/blaste/blaste.html">(https://www.laits.utexas.edu/poltheory/james/blaste/blaste.html</a>), called it:

A custome lothsome to the eye, hatefull to the Nose, harmefull to the braine, dangerous to the Lungs, and in the blacke stinking fume thereof, neerest resembling the horrible Stigian smoke of the pit that is bottomelesse.

The <u>coca plant</u> <u>(https://en.wikipedia.org/wiki/Coca)</u> is indigenous to the eastern slopes of the Andes mountains and has been used in traditional Native American cultures for thousands of years. When the Spaniards colonized the Incan empire they encouraged the use of the plant which had been reserved for the nobility among all classes because it increased the efficiency of slave labor. When the natives chewed coca leaves a small dose of cocaine was released, lifting their mood and giving them strength and endurance especially at high altitude and under starvation conditions, such as in the fabled silver mines of <u>Potosi</u> (https://en.wikipedia.org/wiki/Potos%C3%AD#Labor), Bolivia.

Opium (https://en.wikipedia.org/wiki/Opium) is derived from the sap of Papaver Somniferum

(https://en.wikipedia.org/wiki/Papaver\_somniferum)\_, the common garden poppy, which also supplies the poppy seeds for bagels. The flower is probably native to the eastern Mediterranean but was found in Neolithic settlements in Switzerland, Germany and Spain dating to the 5th millenium BCE. The Sumerians cultivated the poppy as early as 3400 BCE and named it hul gil, or the joy plant. The word opium derives from the Greek words opos (juice) and opion (poppy juice). Opium consists of the dried sap of the poppy plant and contains around 10% by weight of morphine, together with codeine and other psychotropic alkaloids. The representation of the poppy was widespread in the ancient middle east \_\_(https://www.unodc.org/unodc/en/data-and-analysis/bulletin/bulletin\_1967-01-01\_3\_page004.html)\_, associated with various Gods and Goddesses including the Greek gods: Hypnos (Sleep), Nyx (Night), and Thanatos (Death). Opium was eaten and smoked and used for pleasure, analgesia, and together with poison hemlock as a painless execution method. In the first millenia CE, Arab traders

(https://en.wikipedia.org/wiki/Opium#Islamic\_societies\_(500%E2%80%931500\_CE)) brought opium to India and China and Arab physicians described the medicinal effects of opium, such as analgesia, hypnosis, antitussive effects, gastrointestinal effects, cognitive effects, respiratory depression, neuromuscular disturbances, and sexual dysfunction (delayed ejaculation).

Tea is native to southwest China and Burma and has been used as a beverage and medicine for at least to the southwest China and Burma and has been used as a beverage and medicine for at least to the southwest China and Burma and has been used as a beverage and medicine for at least to the southwest China and Burma and has been used as a beverage and medicine for at least to the southwest China and Burma and has been used as a beverage and medicine for at least to the southwest China and has been used as a beverage and medicine for at least to the southwest China and has been used as a beverage and medicine for at least to the southwest China and Surma and has been used as a beverage and medicine for at least to the southwest China and Surma and Surma and Surma surma surma surma surface the southwest China and Surma surface the southwest China and Surma surface the surface that the surface surface the surface that the surface surface the surface surface that the surface surface that the surface surface surface that the surface surf

It was the marriage of Charles II to Catherine of Braganza (in 1662) that would prove to be a turning point in the history of tea in Britain. She was a Portuguese princess, and a tea addict, and it was her love of the drink that established tea as a fashionable beverage first at court, and then among the wealthy classes as a whole.

The custom of tea drinking was critical to the development of the <a href="Industrial Revolution">Industrial Revolution</a> (<a href="https://teaandprogress.weebly.com/industrial-revolution.html">https://teaandprogress.weebly.com/industrial-revolution.html</a>). Not only did tea's caffeine and related chemicals help the workers bear long hours of monotonous toil, but more importantly, the process of boiling the water helped reduce the spread of diseases such as cholera, typhoid and dysentery.

With the aforementioned phrase "tea addict" this is perhaps a good time for a very short discourse on addiction. Mentalhealth.net (https://www.mentalhelp.net/articles/definition-of-addiction/) defines addiction as the repeated involvement with a substance or activity, despite the substantial harm it now causes, because that involvement was (and may continue to be) pleasurable and/or valuable. The degree of harm caused by addiction can range across a scale from innocuous, as with a tea drinker whose only harm is the cost of the tea to severe as with an intravenous heroin addict. Addictions are psychological, and the strength of the addiction can range from a mild habit to a severe compulsion. Addiction is also physical if cessation of the drug triggers withdrawal symptoms; a tea or coffee addict often suffers a mild headache if they skip their daily dose while severe alcoholics can suffer delirium tremens (https://en.wikipedia.org/wiki/Delirium\_tremens) upon withdrawal. Sometimes drug usage leads to tolerance (https://en.wikipedia.org/wiki/Drug\_tolerance) whereby the body changes so as to require an increased dose of the drug to obtain the same effect. Development of tolerance varies according to the drug and the dose. People who have a nightly glass of wine for example, may develop no tolerance, but if they increase their intake to a nightly fifth of scotch, they become more tolerant of the drug. Similarly, people who smoke a modest amount of opium daily may not suffer withdrawal upon cessation, but a heavy user of intravenous heroin will suffer severe withdrawal symptoms. Withdrawal from opiates, benzodiazapenes (Valium, Librium, Xanax, Ativan/lorazapam) or alcohol can cause seizures and death. We'll look more closely at the science of addiction in Session 5.

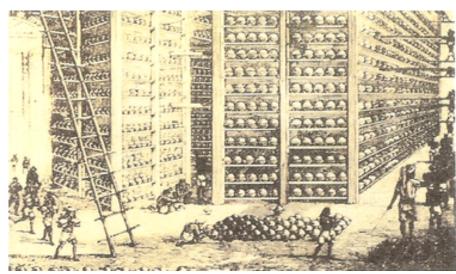
### **The Opium Wars**

Ironically, it was the growth of the tea trade that led to two major wars about drugs, the Opium Wars

(https://en.wikipedia.org/wiki/First\_Opium\_War). Dutch and Portuguese traders had originated trade with China from the early seventeenth century including selling small amounts of opium from India into China. The British East India Company dramatically increased trade with China in the eighteenth century, purchasing tea, silk, and porcelain china in exchange for silver specie.

Unfortunately China had no interest in European manufactured goods and the resultant trade imbalance was a drain on Britain's finance. The British East India Company remedied this imbalance by dramatically increasing the opium cultivated in India and shipping it through traders into China, where it was exchanged for silver. Shipments increased from 200 chests annually in 1729 (a chest weighed about 140 pounds) to 10,000 chests by 1820 \_\_(https://www.britannica.com/topic/opium-trade). The Emperor of the Qing dynasty, disliking both the opium habit as well as the depletion of his treasury, outlawed the sale of opium, but this had little effect due to corruption by government officials. In 1839 the Chinese Emperor seized 20,000 chests of opium and blocked all foreign trade in the port of Canton. As a result the British Navy used its gunboats to defeat the Chinese and the First Opium War (https://en.wikipedia.org/wiki/First\_Opium\_War) was settled in Britain's favor through the Treaty of Nanjing. The British were allowed free trade through five treaty ports and China ceded Hong Kong to the British. However, selling opium in China was still illegal, and so

in 1856 Britain and France launched a <u>Second Opium War</u> (<a href="https://en.wikipedia.org/wiki/Second\_Opium\_War#Aftermath">https://en.wikipedia.org/wiki/Second\_Opium\_War#Aftermath</a>) against China. The Chinese signed the Convention of Beijing in 1860, legalizing the sale of opium within China, opening many more trading ports, legalizing freedom of religion, and ceding the future port of Vladivostok to the Russians. By 1879, China imported 13 million pounds of opium annually, and Britain had a positive balance of trade with China. Chinese peasants grew opium as a cash crop, and China produced and consumed an additional 32 million pounds of opium annually. Many of Boston's Brahmin families made their fortunes from selling opium to China, including the <a href="https://en.wikipedia.org/wiki/Second\_Opium\_War#Aftermath</a>) against China. The China, opening many more trading ports, legalizing the sale of opium within China, opening many more trading ports, legalizing the sale of opium within China, opening many more trading ports, legalizing the sale of opium within China, opening many more trading ports, legalizing the sale of opium within China, opening many more trading ports, legalizing the sale of opium within China, opening many more trading ports, legalizing the sale of opium within China, opening many more trading ports, legalizing the sale of opium within China, opening many more trading ports, legalizing the sale of opium within China, opening many more trading ports, legalizing the sale of opium within China, opening many more trading ports, legalizing the sale of opium within China, opening many more trading ports, legalizing the sale of opium within China, opening many more trading ports, legalizing the sale of opium within China, opening many more trading ports, legalizing the sale of opium within China, opening many more trading ports, legalizing the sale of opium within China, opening many more trading ports, legalizing the sale of opium within China, opium within China, opium within China, opium



Opium storage at a British East India Warehouse (https://en.wikipedia.org/wiki/History of opium in China)

### Use or Abuse?



Emaciated Opium Smokers (https://panaceachronicles.com/tag/opium-wars/page/2/)

The success of the British opium trade led to questions about the morality of the practice. Several missionary groups such as the Quaker <u>Society for the Suppression of the Opium Trade</u>

(https://en.wikipedia.org/wiki/Society\_for\_the\_Suppression\_of\_the\_Opium\_Trade) and the Protestant Anti-Opium League (https://timesmachine.nytimes.com/timesmachine/1893/03/04/109694645.pdf) waged public campaigns to halt the trade, with poignant descriptions of gaunt opium addicts wasting away in their opium dens. According to George T. Lay of the British and Foreign Bible Society, the typical opium smoker was characterised by 'lank and shrivelled limbs, tottering gait, sallow visage, feeble voice, and death-boding glance of the eye'. The missionary T. Windsor added that opium - 'one of the devil's chief agents to bind the people to himself' - kept 'hundreds of millions of people bound in absolute slavery', the only salvation being faith in Christ and belief in the Gospel. In 1895 the British government convened a Royal Commission on Opium to look into the matter. To the dismay of the anti-opium movement, their report \_(https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2509215/?page=1)\_recommended against abolishing the trade, pointing out that opium is an extremely useful medicine for such diseases as malaria, dysentery, endemic diarrhoea, cholera, and pulmonary diseases. "As regards the practice of eating or drinking opium, however, the non-medicinal use of the drug for pleasurable purposes appears to merge so into its medicinal use for the mitigation of suffering and the prevention of disease that it would be extremely difficult - indeed, impossible - to interfere with the one purpose without inflicting great hardships on those who use it only for the other, and who find in it their one resource in the various ailments which are so common in damp and malarious districts. The amount of

painful, wasting disease which is met with in India in which opium alone gives any relief makes it extremely difficult, and in the opinion of many most impolitic, to interpose any obstacle to the easy acquisition by the people of so important a household medicament." The rehabilitation of the opium traders has more recently been taken up by some scholars such as R.K. Newman. In Opium Smoking in Late Imperial China: A Reconsideration (https://canvas.harvard.edu/courses/41939/files/5991546/download?wrap=1). (https://canvas.harvard.edu/courses/41939/files/5991546/download?wrap=1). Newman makes the point that opium smoking has no deleterious effect on human physiology, except perhaps on the brain, so that the gaunt sallow opium smokers were perhaps just obtaining relief from their ailments. In addition, while some bureaucrats, businessmen, and unhappy wives smoked opium to relieve stress, "the rest of Chinese opium consumption could, broadly speaking, be classed as social and recreational. Many people obviously smoked for the sheer pleasure of it, sometimes several times a day, but often on festive occasions only. Younger people smoked to imitate their elders or peers, to satisfy their curiosity about the effects of the drug, or to see if it lived up to its dubious reputation as an aphrodisiac. Businessmen smoked with clients and partners to humour them or clinch a deal. By the I870s it was perfectly normal for Peking hosts to offer pipes to their guests and by the I890s this practice was ubiquitous in polite society."

Newman attempted to reconcile descriptions of opium use and abuse in China with statistics about opium production and importation and came up with the following stratification of users:

Table 4
Opium Consumption in 1906

A Usage:	B Percent of population (m or f)	C Total numbers	D Amounts per individual (in mace)	E National totals (in piculs)
Medical				
By men	6o	81m	four each	
By women Festive	40	54m	per year	33,750
By men	70	94.5m	two each	
By women Personal smoking	50	67.5m	per year	20,250
By women light/occational	8	10.8m	one-third	
moderate/regular By men	2	2.7m	every 3 days 1 daily	27,375 61,594
light/occasional	20	27m	two-fifths every 3 days	82,080
moderate/regular	12	16.2m 12.6m	two-fifths	9)
		1.8m 1.8m	every day 1 daily 2 daily	114,975 41,063 82,125
heavy/regular	1.8	2.4m 1.4m 1.0m	5 daily 8 daily Total	159,687 182,500 805,399

One mace=3.78 grammes or 58.3 grains One picul=133.3 lbs or 16,000 mace According to this estimate, slightly over half the population of China used opium, 12% used moderate amounts daily but only about 3.5% were physically addicted. Since the drug was legal, many of these addicts would have led normal lives without their addiction interfering with other social obligations.

This view of casual opium smoking is supported by a recent memoir of an opium addict. Steve Martin, who wrote <u>Opium Fiend: A 21st Century Slave to a 19th Century Addiction</u> (<a href="https://www.collectorsweekly.com/articles/journey-into-the-opium-underworld/">https://www.collectorsweekly.com/articles/journey-into-the-opium-underworld/</a>), said, "Opium's really odd. With modern drugs, you take a single hit and you're hooked for life. You'll think of nothing else. Opium's the exact opposite of that. It takes years and years to get addicted. But once it gets its hooks into you, it's really difficult and painful to get off."

Newman's view of opium as a predominantly harmless vice is supported by Professor Frank Dikötter of the University of London, in a lecture titled 'Patient Zero': China and the Myth of the 'Opium Plague' (http://www.frankdikotter.com/publications/the-myth-of-opium.pdf). The rate of addiction to opium in China, is similar to the alcoholism rate in the United States. About 14% of American (http://www.newsweek.com/30-percent-americans-have-had-alcohol-use-disorder-339085) adults report severe problem drinking in the past year, and 3.8% self report as alcoholics (https://www.cbsnews.com/news/30-of-americans-abuse-alcohol-study-says/). We'll look further at factors which predispose individuals to addiction in Session 5.

#### **Before Prohibition in the United States**



(https://canvas.harvard.edu/courses/41939/files/5991552/download?wrap=1)



(https://canvas.harvard.edu/courses/41939/files/5991553/download?wrap=1)

## Jefferson and Franklin: Two Famous American Drug Addicts

The growth of opiate usage in the United States paralleled that of China. Prior to the 1840's the amount of opium imported to the U.S. was small. Rich landowners often planted opium poppies in their gardens for occasional medicinal use, as Thomas Jefferson did at Monticello. Later in life Jefferson suffered from chronic diarrhea and was prescribed tincture of laudanum, or opium dissolved in alcohol. He wrote to his doctor <u>"that with care and laudanum I may consider myself in what is to be my habitual state"</u> (https://books.google.com/books?

Id=p075piZ8\_ykC&pg=PA35&dq=%22that+with+care+and+laudanum+l+may+consider+myself+in+what+is+to+be+my+habitual+state.%22&h
I=en&sa=X&ved=0ahUKEwir\_byw787bAhUL0IMKHbOLAkIQ6AEIKTAA#v=onepage&q=%22that%20with%20care%20and%20laudanum%20l
%20may%20consider%20myself%20in%20what%20is%20to%20be%20my%20habitual%20state.%22&f=false)." He maintained his use,
with increasing dosage until the day before he died when he advised his doctor that he wished no more laudanum, "No Doctor, nothing
more. \_(https://www.monticello.org/site/research-and-collections/medicine)\_" The gardens at Monticello continued to planted with
Jefferson's poppies until 1987 when agents of the Drug Enforcement Agency raided Monticello \_(http://1776now.org/how-the-dea-scrubbed-thomas-jeffersons-monticello-poppy-garden-from-public-memory/) and forced the staff to uproot the offending plants.

Benjamin Franklin led an active and vigorous life until the age of 76 when he began to be plagued by gout and kidney stones, writing a friend that he "daily voided Gravel Stones the Size of small Pease" (https://books.google.com/books?

id=AVKvBAAQBAJ&pg=PA145&dq=benjamin+franklin+laudanum&hl=en&sa=X&ved=0ahUKEwj8ioej9M7bAhXl6lMKHfrEDVYQ6AEINjAC#v
=onepage&q=laudanum&f=false)." When he was 83, he wrote a friend "I have a long time been afflicted with almost constant and grievous Pain to combat which I have been obliged to have recourse to Opium." In his final year he wrote that although it gave
Franklin "Ease from time to time", he reported that "it has taken away my Appetite and so impeded my Digestion that I am become totally emaciated and little remains of me but a Skeleton covered with a Skin." Franklin died in 1790 at age 84.

## **Opiate Usage in 19th Century United States**

addicted. In any event, opium imports rose dramatically between 1840 and 1860:

This section borrows heavily from Professor David Courtwright's book Dark Paradise (https://www.amazon.com/Dark-Paradise-David-T-COURTWRIGHT-ebook/dp/B005JCUDJ2/ref=sr\_1\_1?s=books&ie=UTF8&qid=1529004558&sr=1-1&keywords=dark+paradise+courtwright). Additional information can also be found in Courtwright's paper Opiate Addiction and Cocaine Use in the South, 1860-1920 (https://canvas.harvard.edu/courses/41939/files/5991565/download?wrap=1). (https://canvas.harvard.edu/courses/41939/files/5991565/download?wrap=1). Opium imports to the United States were very small prior to the 1840's. Courtwright calculated opium imports at less than ½ pound per 1,000 people prior to 1845 based on customs records. Prior to 1842 Courtwright estimates the national addiction rate was no more than 0.72 per thousand, but over the course of the century that grew seven fold, to 4.59 addicts/thousand, which touched off a public crisis very similar to the opiate crisis of today. (The current U.S. opiate crisis has an estimated 6 addicts/thousand). The growth in opiate use may have gotten started by a series of epidemics which struck the United States: cholera in 1832-1833, dysentery from 1847 to 1851 and cholera again between 1848 and 1854. These gastrointestinal diseases cause severe diarrhea and can be fatal due to dehydration. Opiates are an effective treatment because the morphine in opium binds to endogenous opiate receptors in the intestine and slow or stop the motility of the bowel, thus stopping the diarrhea. Courtwright speculates that some patients, having been treated for a long time, kept up the drug as a habit and became

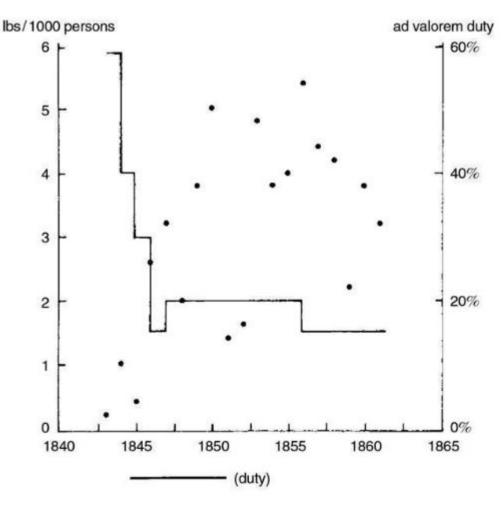


Figure 2 Pounds of opium imported per capita, fiscal years 1843 to 1861. Sources: "Estimated Population of the United States: 1790 to 1957," Bureau of the Census, Historical Statistics of the United States: Colonial Times to 1957 (Washington, D.C.: G.P.O., 1960), 7; "Importations into the United States of various forms of opium . . .," Conference Internationale de l'Opium, Actes et Documents, 2 (The Hague: Imprimerie Nationale, 1912), 36. Ad valorem duties are as given in Table 3. (For consistency the duties for fiscal years 1843 to 1846 have been expressed in ad valorem form.)

The American Civil War was fought from 1861 to 1865 and many have ascribed the subsequent boom in opiate addiction to the war; addiction was termed "the army disease" in the latter 19th century. While there may have been many war veterans who became

addicts, Courtwright puts the blame on the invention of the hypodermic syringe and needle, which only became popular during the 1870's. The primary active ingredient in opium is morphine, a white crystalline powder, named after Morpheus, the Greek God of dreams. Morphine was first isolated from opium around 1805, and was first sold in 1827 by Heinrich Emanuel Merck (https://www.drugdangers.com/manufacturers/merck.htm), who built his company selling morphine, codeine and cocaine. Morphine is a better drug than opium: it is pure and its dosage is standardized. However during the Civil War, opium pills, powers and tinctures were the primary analgesic. As Courtwright relates, "One Confederate physician, William H. Taylor, asked every patient he saw whether his bowels were open or shut. If the answer was open, Taylor handed him a plug of opium. Union Surgeon Major Nathan Mayer did his diagnosing from horseback. If he thought a soldier needed morphine, he would pour out an "exact quantity" and then let the soldier lick it from his hand."

The switch from opium to morphine benefited from the hypodermic needle as a mode of intravenous administration. The hypodermic syringe was first paired with a hollow needle by Scottish physician <u>Alexander Wood in 1853</u>

(https://en.wikipedia.org/wiki/Alexander\_Wood\_(physician))\_, who used it for administration of morphia. The hypodermic syringe and needle started becoming popular in the United States in the early 1870's and by 1880 nearly every physician had one, and used it primarily for administering morphine. There were several reasons for its popularity. The state of medicine in that day was dismal, with very few effective medicines. In 1860 when Oliver Wendell Holmes \_\_(http://quotes.yourdictionary.com/author/quote/165014)\_, Sr., made his famous remark, "I firmly believe that if the whole materia medica, as now used, could be sunk to the bottom of the sea, it would be all the better for mankind, and all the worse for the fishes," he specifically exempted opium, a medicine "which the Creator himself seems to prescribe." In 1834, opium was the most frequently prescribed drug. In 1900 the three top causes of death were pneumonia and flu, tuberculosis, and gastrointestinal infections \_\_(http://demography.cpc.unc.edu/2014/06/16/mortality-and-cause-of-death-1900-v-2010/). Morphine reduced fevers from flu and malaria, helped to control coughing from tuberculosis and pneumonia, and stopped the potentially fatal diarrhea from gastrointestinal infections; it was a miracle drug. In addition, when injected intravenously, morphine gave a much stronger feeling of euphoria than opium, which was more slowly absorbed in the gut. The country doctor, going from patient to patient would find no better way to build his practice by relieving symptoms and making his patients happy.

However, the country doctor couldn't stay with his patients, and for those patients with chronic conditions, he often gave them a hypodermic syringe and needle, showed them how to self administer the drug and gave them a standing prescription with a pharmacist in town. As a result, the last three decades of the 19th century saw an explosion of iatrogenic, or doctor induced addiction.

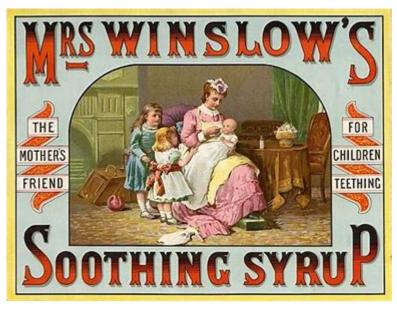
The experience of intravenous opiates was described by Howard Markel in his book, <u>An Anatomy of Addiction: Sigmund Freud, William Halsted, and the Miracle Drug Cocaine</u> (https://www.amazon.com/Anatomy-Addiction-Sigmund-William-Halsted-ebook/dp/B004J4WJXE/ref=sr 1 1?ie=UTF8&qid=1529088044&sr=8-

1&keywords=An+Anatomy+of+Addiction%3A+Sigmund+Freud%2C+William+Halsted%2C+and+the+Miracle+Drug+Cocaine): The so-called rush of morphine and heroin begins shortly after its injection. One of the first signs is the rapid constriction of the pupils. As those black dots dominating the eyes grow smaller and smaller, practically to pinpoints, one is less able to accommodate light and visual cues. So, too, does the outlook of an individual transform from an outward glance into an inward and transfixed state. Warm sensations in the stomach progress to erotic stirrings and tingling in the genitals; the feeling has been described as better than the most extraordinary of sexual orgasms. Once the sensual fireworks subside, however, a stage even more highly coveted by addicts emerges, a first-class, high speed ticket to temporary oblivion. Time appears to come to a halt and the junkie can pose as still as an accomplished yoga practitioner: silently sitting or lying on the floor, hugging his knees, or crouched in a fetal position. For the next few hours, the opiate-dominated mind is embraced in a silky, dreamy envelope of comfort that promises escape from the hardships, stresses, and trials of daily life.

A surprising feature of this epidemic was that between 60 and 70% of opiate addicts were women, mostly middle to upper class. These women had been given a syringe and prescription for dysmenorrhea, headache, or chronic respiratory or gastrointestinal disorders. Their addictions were largely hidden; often no one knew except for their doctor and druggist. As mentioned above, addiction itself was unlikely to lead to physical problems, aside from some degree of constipation. As Courtwright relates, "Willis P. Butler, a crusty, nonagenarian physician who in 1919 established a morphine maintenance and treatment program in Shreveport, Louisiana, likes to illustrate this point with an anecdote. One day a prominent citizen walked up to him and denounced his addicted patients as "hopheads" who ought to be run into the river. Irritated, Butler took the visitor aside and confided that the man's own 75-year-old mother, an asthma sufferer who had been addicted for more than 20 years, was a regular patient at the clinic. Once he overcame his surprise and shock, the erstwhile critic became one of the program's staunchest supporters."

Courtwright uses data from the 1920's to show that opiate addiction was roughly twice as common in the South than in the North. Review of pharmacy prescriptions in Boston from 1888 showed that 14.5% contained an opiate; similar records from New Orleans showed 24.5%. Courtwright attributes the increased opiate use in the South not only to increased prevalence of febrile diseases, but also to the psychic malaise and despair in the Reconstruction era South. It is interesting that the number of black opiate addicts was very low, perhaps because their poverty precluded access to health care.

(https://en.wikipedia.org/wiki/Mrs.\_Winslow%27s\_Soothing\_Syrup)



#### **Patent Medicines**

Medical prescriptions were not the only sources of opiates in the 19th century. All drugs were legal and morphine or opium were often added to nostrums or patent medicines. Babies were often heavily dosed to keep them quiet; "Paregoric by the bottle/emptied down the baby's throttle" (http://www.traditionalmusic.co.uk/songster/05-the-romance-of-a-hammock.htm) was a lyric to a popular song. Surveys of addicts show that the majority started their addictions from a doctor's prescription, but there may have been some addicts who started with patent medicines, especially among the poor who couldn't afford doctors and self medicated with nostrums. Oral administration was much less likely to lead to addiction compared to smoking or intravenous administration because of its slower absorption and lack of a sudden euphoric rush. People often didn't know addictive drugs were in the nostrum; withdrawal symptoms could have been interpreted as a bad cold. Some nostrums containing morphine were marketed as an addiction cure. As Courtwright recounts, one man spent "over a thousand dollars endeavoring to get rid of the habit" before he discovered, after 11 years, that his bottled morphine cure contained largely morphine.



https://www.nytimes.com/2018/04/21/opinion/an-opioid-crisis-foretold.html (https://www.nytimes.com/2018/04/21/opinion/an-opioid-crisis-foretold.html)

#### Heroin

In the 1890's, a chemist working at the Bayer Pharmaceutical company in Germany was trying to synthesize codeine from morphine because codeine was more widely used as a cough suppressant. When he combined morphine with acetyl chloride he inadvertently synthesized diacetylmorphine. After testing it on dogs and Bayer employees they named it Heroin, because it made people feel heroic. Around the same time Bayer similarly added an acetyl group to salicylic acid from the willow tree to make acetylsalicylic acid, which they named Aspirin. Compared to morphine, heroin is twice as strong while codeine is only one tenth

(<a href="https://en.wikipedia.org/wiki/Equianalgesic">https://en.wikipedia.org/wiki/Equianalgesic</a>) as strong. Bayer marketed Heroin widely as a cough suppressant and it became quite popular. Just as Purdue Pharma did with Oxycontin exactly a century later, Bayer claimed that heroin was non-addictive. Unfortunately they were wrong. It wasn't until the 1950's that a non-addictive morphine derived cough suppressant was invented:

<a href="https://en.wikipedia.org/wiki/Dextromethorphan#History">https://en.wikipedia.org/wiki/Dextromethorphan#History</a>), marketed today as Robitussin DM.

### **Smoking Opium**

Another type of opiate use in America was opium smoking. This practice was brought over from China starting around 1850 when the opening of the western gold mines caused a large demand for coolie labor. Adventurous Chinese men would plan to work abroad, save as much as possible, and return to China wealthy and respected. The laborers would go into debt to pay for their passage and with meager wages of around \$1 per day, it often took a long time to pay the debt off. Opium smoking helped them forget their troubles for a time. Just as in China, opium smoking was a social behavior. Every Chinese community had a room where opium smoker scould meet and socialize. "The morphinist wishes to be alone to enjoy his drug," explained Thomas Crothers, but the opium smoker "wants company, is talkative, his mind turns in a philosophical direction, to monosyllabic comments on men and events. He goes to a 'joint,' or a room which persons of a similar desire frequent." Inhaling the vapors of burning opium he is "immediately at peace with everyone." Physician Harry Hubbell Kane agreed with this assessment, declaring, "I have never seen a smoker who found pleasure in using the drug at home and alone, no matter how complete his outfit [pipe and paraphernalia], or how excellent his opium is." Since opium smoking delivers far less morphine into the body than intravenous administration, opium smokers could often smoke occasionally for years without becoming addicted, but the pressure of an expatriate life at hard labor did drive many into addiction. With a daily opium cost of perhaps 50 cents against a daily wage of \$1, these addicts had no hope of saving enough money to return to China and were reduced to a bleak existence.

Towards the end of the century, some whites started to pick up the habit. These were often gamblers, criminals or prostitutes; members of the sporting class who enjoyed the social aspects of opium smoking. Eventually there were opium dens in all major cities where criminals could congregate. As Courtwright relates,."In spite of the desperate character of the clientele, fights were practically unknown. Instead, the smokers passed the time between pipes by chatting, smoking tobacco, telling stories, cracking jokes, or even singing in low voices. They might venture out for a bite to eat and return for some sleep. Early in the morning the prostitutes who worked the nearby neighborhoods would begin drifting in, to have a smoke before retiring. Even those who did not smoke would sometimes stop by to visit their acquaintances. Within the den a rigid code of honor prevailed: smokers would not take advantage of other smokers, or tolerate those who did. "I have seen men and women come in the joints while under the influence of liquor,"

continued the New York addict, "lie down and go to sleep with jewelry exposed and money in their pockets, but no one would ever think of disturbing anything." "The joint," confirmed an experienced Denver smoker, "is considered a sacred sanctum, and to betray ... any conversation between the fiends is considered an unpardonable offense, and a fiend who commits a second offense of this character is generally debarred from all the rights and privileges of the joint."

By analyzing customs data, Courtwright estimates that by the end of the 19th century there were on the order of 220,000 Americans addicted to medicinal opiates and 90,000 smoking opium addicts, for a total number of 310,000 addicts nationwide, or a rate of 4.59 addicts per thousand.



http://www.deamuseum.org/ccp/coca/history.html

(https://web.archive.org/web/20141025153514/http://www.deamuseum.org/ccp/coca/history.html)

#### Cocaine

Europeans had long heard stories about the legendary coca plant of South America but it wasn't until 1860 that a German chemist,

Albert Niemann (https://en.wikipedia.org/wiki/Albert\_Niemann\_(chemist)), obtained sufficient quantity of coca leaf to isolate the active ingredient, cocaine. Merck Pharmaceuticals (https://www.narconon.org/drug-information/cocaine-circa-1860-1900.html) sold pharmaceutical grade cocaine to researchers during the 1860's to the 1880's. Researchers were captivated by the drug, perhaps no more so than Sigmund Freud who dedicated his first major research paper to the drug in a 70 page tribute named Über Coca (http://www.heretical.com/freudian/coca1884.html). Freud was a regular user of cocaine for many years but avoided the worst of addictions. Dr. William Halsted (https://en.wikipedia.org/wiki/William\_Stewart\_Halsted), on the other hand, the most prominent surgeon of the 19th century, perfected the use of injected cocaine for local anesthesia during surgery by injecting himself, and in the process became hopelessly addicted. As described in Howard Markel's book, An Anatomy of Addiction: Sigmund Freud, William Halsted, and the Miracle Drug Cocaine (https://www.amazon.com/Anatomy-Addiction-Sigmund-William-Halsted-ebook/dp/B004J4WJXE/ref=sr 1 1?ie=UTF8&qid=1529088044&sr=8-

<u>1&keywords=An+Anatomy+of+Addiction%3A+Sigmund+Freud%2C+William+Halsted%2C+and+the+Miracle+Drug+Cocaine</u>), Halsted finally overcame his debilitating cocaine addiction after several years of therapy by becoming a functioning morphine addict for the rest of his life.

Cocaine was initially so expensive because it was difficult to transport large quantities of coca leaf from the eastern Andes to Europe without them spoiling. Parke Davis, a young Detroit based pharmaceutical firm solved that problem by making crude coca paste in the Andes and shipping it to the United States and soon became the largest worldwide supplier of pharmaceutical grade cocaine which was sold through doctors and druggists as well as to patent medicine manufacturers and the Coca-Cola company. As is often the case, the new drug was hailed as a miracle cure, suitable for sue as an aphrodisiac, anesthetic, a cure for hay fever, asthma, headache, indigestion, alcoholism, or opiate addiction. In 1887, the US Surgeon General recommended that cocaine be used to treat depression \_(https://www.narconon.org/drug-information/cocaine-circa-1860-1900.html)\_, claiming that there was no such thing as cocaine addiction. Unfortunately cocaine can be very addictive, especially if injected, and the addiction can be much worse than opiates; opiate addicts can often function normally in society whereas cocaine addicts become paranoid and often suffer psychosis and complete mental breakdown within months of the start of their addiction.

Use of heroin in the black community had been very low during the 19th century, but cocaine use started, according to Courtwright among the stevedore community in New Orleans who often had to work long hours under difficult conditions. During the 1890's it spread among the black and the criminal community; it was often offered at brothels. According to Courtwright, *In 1912 Charles Terry found blacks significantly overrepresented among Jacksonville's regular cocaine users; their rate was 2.98 per thousand, in* 

comparison to 1.61 for whites. The dangers of cocaine also became well known. "Well, the cocaine habit is might' bad," ran one work song, "It kill ev-vbody I know it to have had."

## The First War on Drugs

During the decades of the 1890's and 1900's a critical transition was underway. The <a href="Temperance Movement">Temperance Movement</a> (<a href="https://en.wikipedia.org/wiki/Temperance\_movement">https://en.wikipedia.org/wiki/Temperance\_movement</a>) had gained strength throughout the country as Evangelical Protestant reformers railed against the sinfulness of man and the debauchery of alcohol. The movement also was anti-drug, as drug users' relationships with their drugs was thought to preclude their relationship with God. At the same time, drug use in America was shifting. For one thing, the rates of opiate addiction started to decline from the mid-1890's. Physicians quickly realized their role in iatrogenic addiction and became much more careful about unsupervised opiate prescriptions. At the same time, the morphine addicts who had been Civil War veterans or middle to upper class housewives were slowly dying off and giving way to the rising use of drugs among the underclass: criminals, prostitutes, and gamblers. There was at the same time a growing racial backlash against Chinese workers who were stereotyped as opium smokers. In 1909 Congress passed the first drug prohibition law, the Opium Exclusion Act. This law specifically targeted Chinese by banning just the form of opium used for smoking.

Around the same time, blacks were being increasingly stereotyped as crazed drug fiends. As Courtwright relates in The HIdden Epidemic: Opiate and Cocaine Use in the South:

From 1900 to 1914 several white authorities claimed that blacks, crazed by cocaine, went on superhuman rampages of violence. "Many of the horrible crimes committed in the Southern States by the colored people can be traced directly to the cocaine habit," charged Colonel L.W. Watson of Georgia in 1902. Others who sounded variations on this theme included New Orleans district attorney St Clair Adams, Vicksburg municipal court judge Harris Dickson, New Jersey physician Edward Huntington Williams, and Dr. Hamilton Wright, a leading member of the United States Opium Commission. Police officials were also concerned with cocaine's exciting effects. "When negros get too much of it," wrote Louisville police chief Jacob H. Haager, "they are inclined to go on the warpath, and when in this condition they give a police officer who attempts to arrest him a hard time." This idea of a drug fueled black crime wave has been disputed by modern historians who see a political motive behind the anti-drug reformers.

Nevertheless, the transition of addiction from upper middle class to the lower classes was a necessary precondition for the First War on Drugs. As Courtwright says, what we think about addiction very much depends on who is addicted. The drug prohibitionists finally gained the upper hand with the passage of the Harrison Act in 1914, which effectively outlawed the sale of all narcotics. In Session 2 we'll look at the effects of this war on drugs, which was really a war against a new class of drug users.

## **Preparation**

Please read the text above and click through the hyperlinks and read whichever of them look interesting. Please come to class prepared to discuss your interest in the topic and consider the question: in the 19th century, what was the appropriate dividing line between drug use and drug abuse?

Also, please email me with any questions or topics that you would like to discuss in class. Please send the email no later than the day before class, to <a href="mailto:ocurme@gmail.com">ocurme@gmail.com</a> (mailto:ocurme@gmail.com).

## **Additional Resources**

List resources