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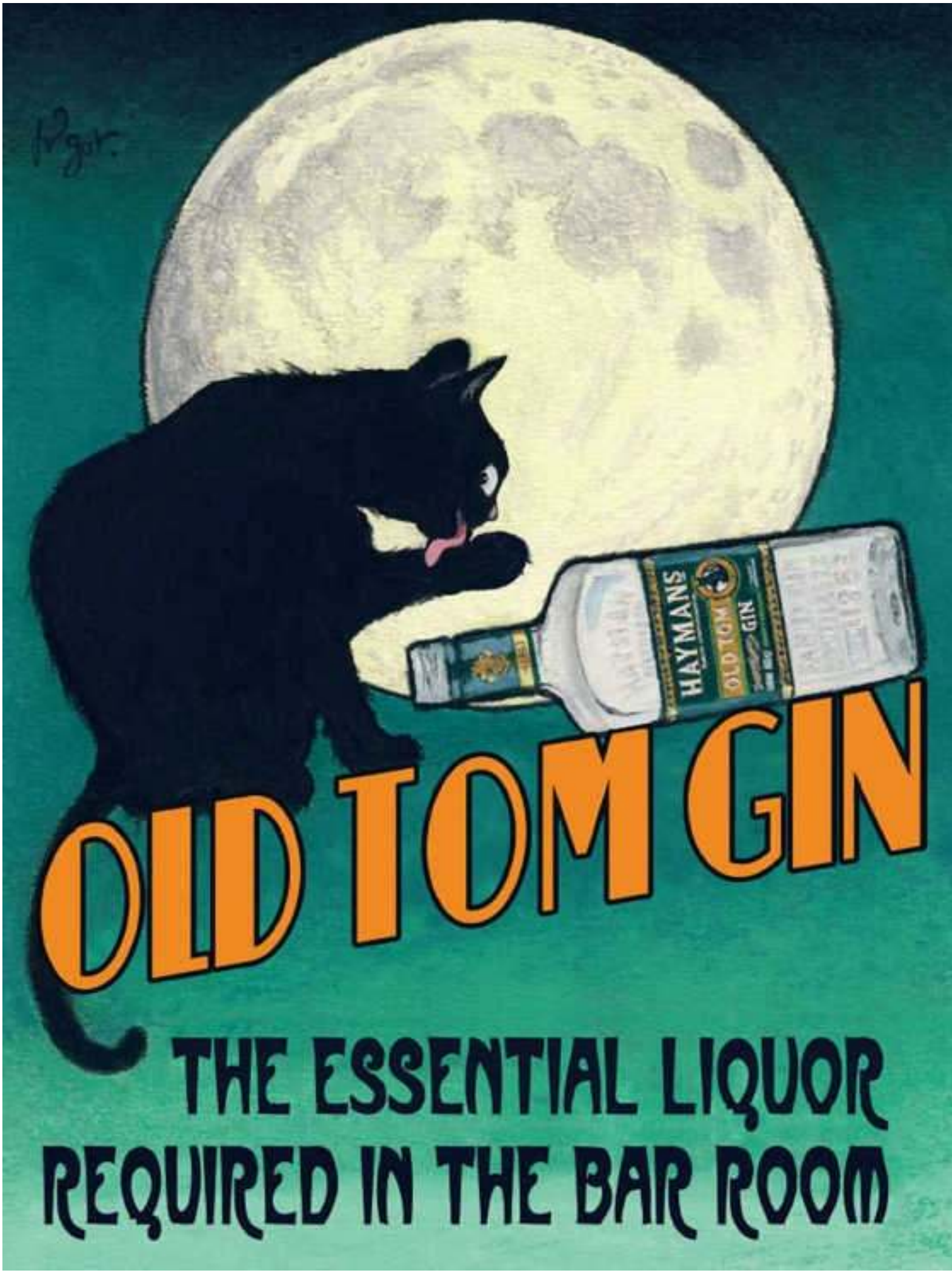
– ORIGINAL –
Aaron Knoll
GIN
The Art and Craft of the Artisan Revival
in
300
Distillations
New Botanicals and Flavours, from Plymouth to Portland
AN INTERNATIONAL COLLECTION
OF GREAT DISTINCTION


OLD TOM GIN
THE ESSENTIAL LIQUOR
REQUIRED IN THE BAR ROOM
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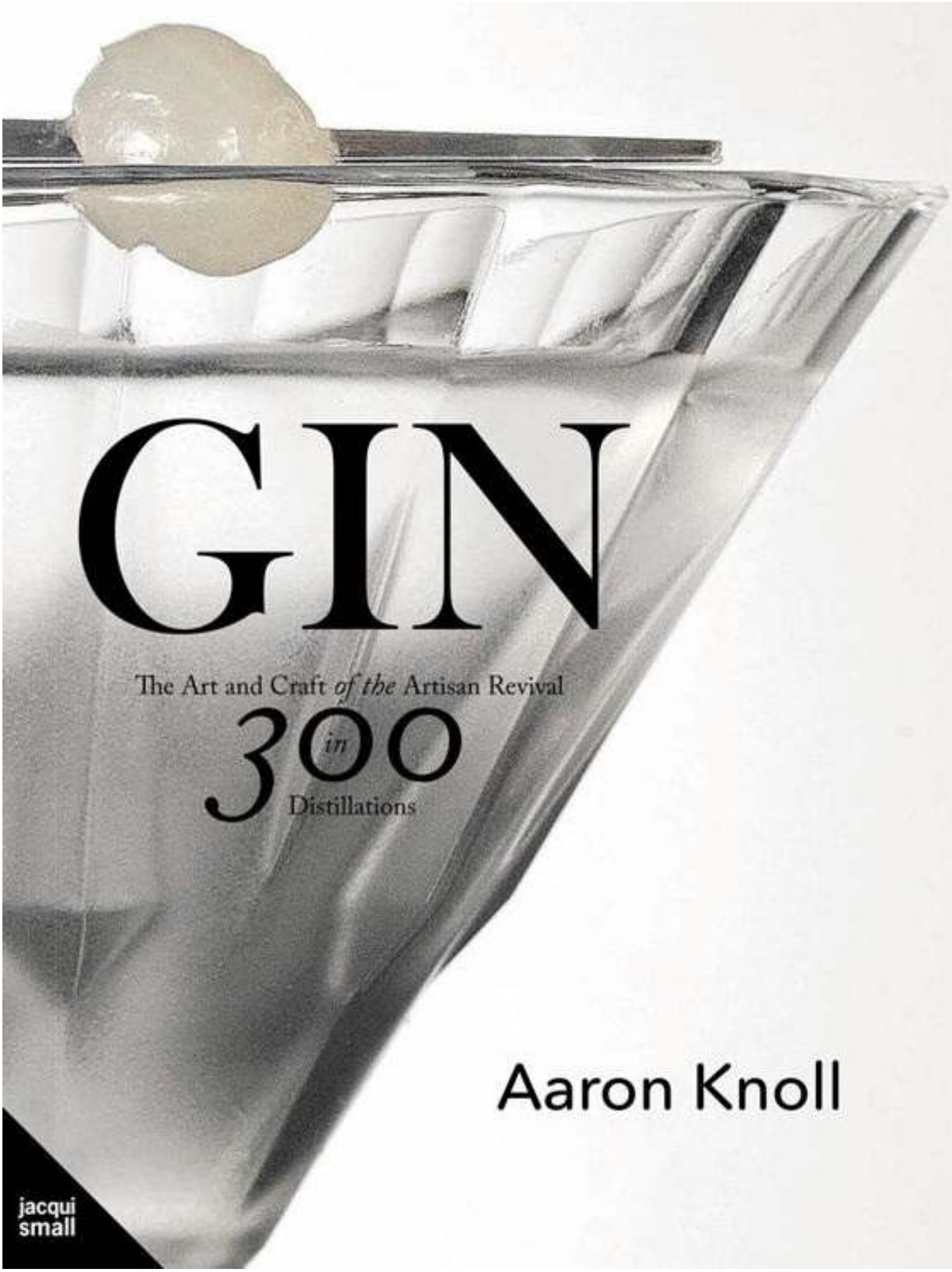

# GIN

The Art and Craft *of the* Artisan Revival

300 *in* Distillations

Aaron Knoll

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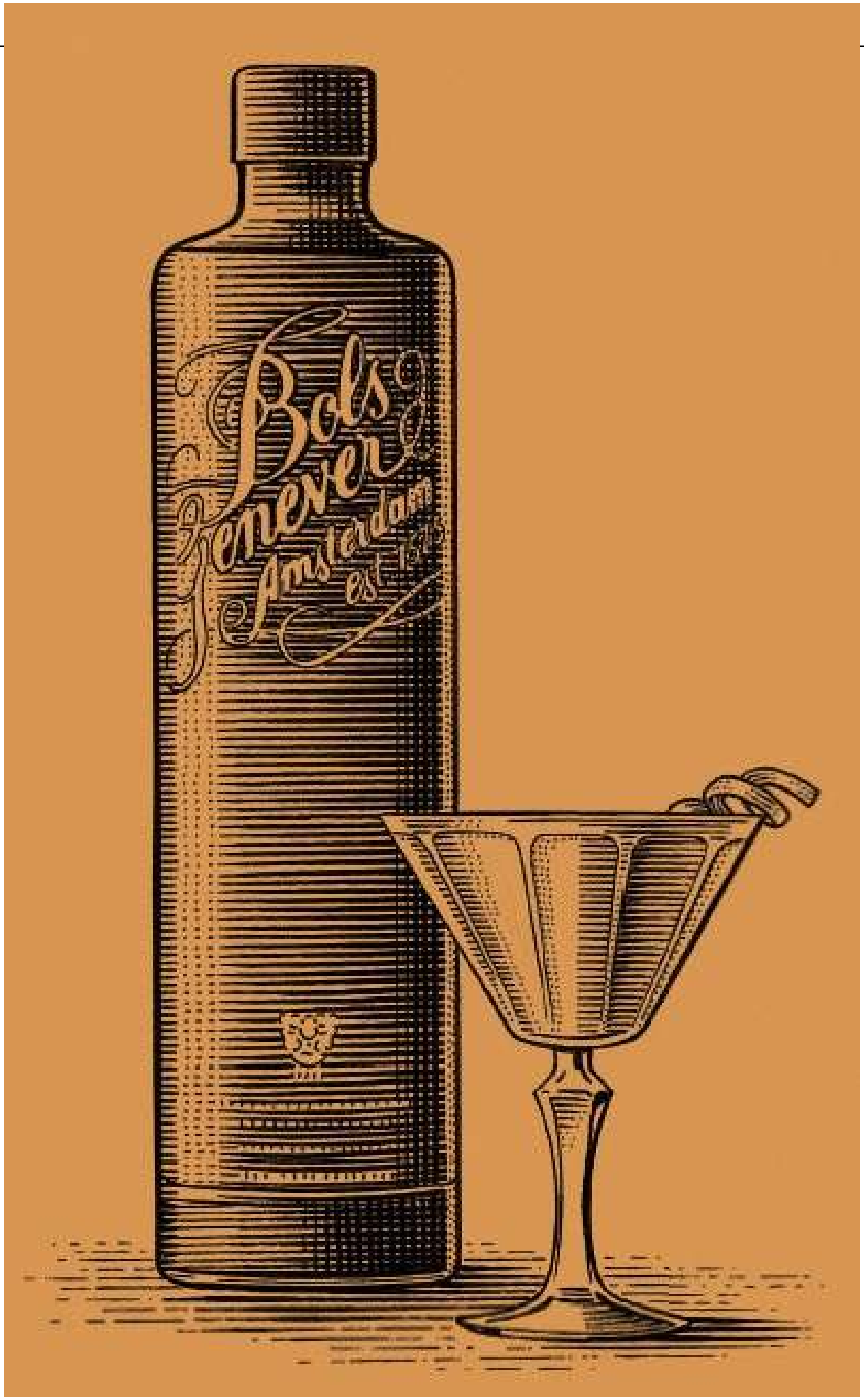
# Contents


Bols
Genever
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# The History of Gin

# The Aroma of Gin

How a plant such as juniper catches the eye of a human, and how they are both then inspired to engage in a long, mutually beneficial relationship, is a complicated thing. There has to be an initial attraction that makes a person look closer at a plant in the first place. That attraction can sometimes be one of appearance, sometimes one of accessibility, or even necessity. But no matter what that first attractor might be, it is most often its usefulness to the other species that determines whether or not it gets a second look. To take from the world of marketing – and, much later, of gin: 'You sell a first sip with the appearance and the ad campaign, but you sell a second sip with the actual product itself.'

We can use this lens to look at how juniper first captured the eye of our distant ancestors, and trace it through history to understand how it came to be the primary flavouring in gin. Though we begin with a look at the prehistory of juniper, this particular strain underlies the narrative in each of the other histories contained in this chapter. Essentially the whole story of gin is how mankind fell in love with juniper. And it begins at the very beginning.

Juniper has a knack for finding a niche, and thriving in it, having been grown successfully in all of its many different forms of species in numerous eco-regions for hundreds of thousands of years. Despite this, its range expanded further after the last ice age, which was 10,000 years ago. Junipers can be found in tropical Africa, the forests of eastern Europe, Tibet, the Pinyon-Juniper woodlands in the deserts of the western United States, and nearly anywhere else in the northern hemisphere. As juniper was so common it should come as no surprise that many people around the world used the plant as part of their daily lives.

As far back as the Palaeolithic era the coniferous juniper shrub was in common use. Archaeologists have discovered that the Lascaux Cave in

France, famous for its thousands of engravings and paintings, was lit by the juniper branch. And indeed researchers found that the branches doubled as wicks for the inhabitants of the cave. There's a certain romanticism around the notion that the very painters who left us some of the best examples of Stone Age art, more than 15,000 years ago, created their vivid depictions of aurochs and deer to the light of an illuminated juniper branch.

The Lascaux Cave is by no means the only Palaeolithic site where evidence of juniper use has been found. Charcoals from burnt juniper have been found in sites in Western Macedonia and in Neolithic sites in what is now modern-day Jordan, as well as along the Dalmatian coast and in Adriatic settlements elsewhere in Europe. Though we can't be sure if the berries themselves were the objects of desire, or whether it was the branch on which they had grown, their presence is a sign that people were indeed aware of the aromatic properties of juniper. The sweet, piney, fresh air and charred pine aromas of burnt juniper are, after all, hugely memorable.

It's worth pointing out that thus far, the sites I've mentioned are all places where juniper was known to have been growing indigenously at the time people were recorded as using it. This is certainly a situation where accessibility and necessity drove the use of the conifer. After all, the juniper plant is short and readily available, with branches that are easy to grab. To track the transition of juniper from a plant of convenience to one of desire, we have to look for evidence that juniper was being found and used in places outside of its native range. This is a tall order for a conifer that has found a niche nearly everywhere in the northern hemisphere.

However, by at least 1500 BC (and possibly much earlier), we find evidence of exactly that. Research shows that whatever utilitarian or aromatic properties our distant ancestors discovered, they warranted special treatment and the transport of the plant to new areas. Kyphi is a well chronicled and much researched ancient Egyptian incense or perfume that took the form of a scented paste. Among its ingredients are many plants that will seem familiar to anyone who has ever looked up a list of

botanicals for a gin: orris root, mint, cinnamon, cassia, cardamom and juniper to name but a few. Perhaps this is one of the earliest historical examples of the aroma accord that underlies many gins being put to good use.

# Gin as Medicine

Juniper has been used for its curative power by cultures going back as far as the ancient Egyptians. A papyrus that dates to 1550 BC suggests juniper as a cure for headaches, or a mixture of oil and the berry to cure tapeworm affliction. Aristotle was writing about the curative powers of juniper in Europe during the fourth century BC.

*The Ebers Papyrus contains several juniper-based cures.*

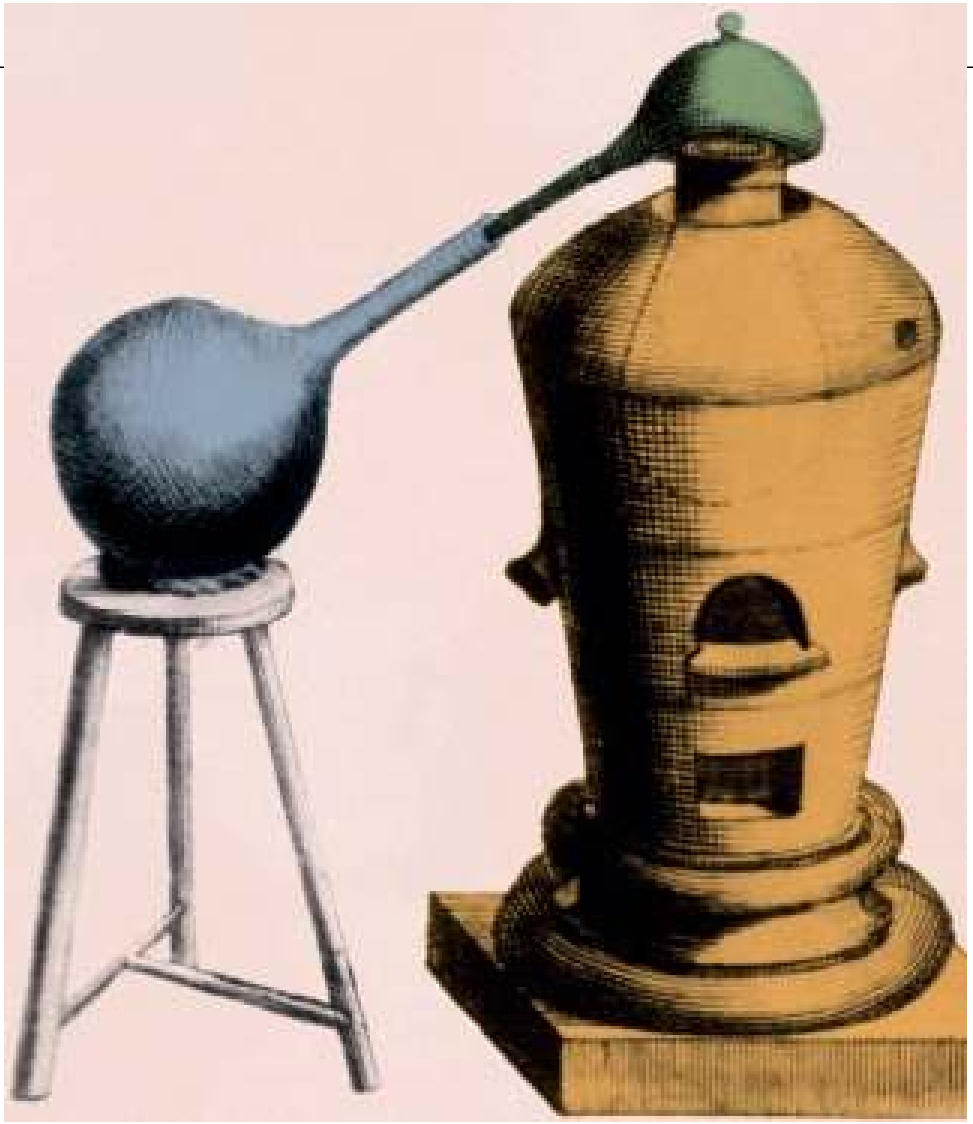
Among the most detailed records of juniper's medical prowess is Pliny the Elder's work during the first century AD. Juniper, it was said, could cur stomach pains, and even repel snakes. Additionally, a whole slew of ailments including 'affections of the uterus', 'griping pains in bowels' or even convulsions 'can be treated by drinking a mixture of white wine witl juniper berries'.

*Pliny the Elder knew a thing or two about smells, and believed the aroma of juniper could ward off snakes.*

Galen wrote in the second century AD that juniper berries ‘clear out material in the liver and kidneys… it thins thick viscid humours’ and ‘produce[s] urine flow to a moderate extent’.

Arabic scholars in the 9th and 10th centuries AD wrote of juniper’s abortive properties. Some even suggested proactive use of juniper might prevent an unwanted pregnancy.

By the 11th century, knowledge of distillation had arrived in Europe. At this time monks in Italy were distilling ‘aqua vitae’ or ‘water of life’ from wine. It’s important to note that these early spirits held symbolic power fo these men of faith. But as they experimented with these waters, they sought to imbue them with additional healing properties using the pharmacopoeia of the day. Though there aren’t precise records available, it’s most likely that juniper was among the early ingredients they experimented with. Firstly, because it grew rampantly all over Italy and secondly, because of its acknowledged curative powers.



*Medieval distillation equipment was crude and was unable to produce quality spirits.*

## A Plague of Juniper

It was during the mid 14th century that some pathogens hitched a ride on some fleas, which hitched a ride on some rats, and helped spawned one of the deadliest pandemics in the history of the world. By the 1350s Europe was gripped with feelings of ‘helplessness, agony and horror’.

Bearded John, better known as John of Burgundy, wrote the bestseller o his day, *Treatise on the Epidemic*. First published in 1365, his text was translated into at least four other languages and over one hundred differen versions. John’s treatise held that the origin of disease was bad air. Junipe was among those ingredients that, when burned, would help protect its burner from the plague. Demand for juniper was high and growing among the masses of Europe, desperate for anything to help them escape the horrors of the plague.

In this time of death, ‘life waters’ were also becoming more widely available to the masses. But in addition to their healing properties, people soon discovered you could get drunk from them. By the early 1500s municipalities in Germany were struggling with this. Though laws were on the books against such a practice, people drank these medicines for pleasure. But environmental pressures would challenge this growing demand. The ‘Little Ice Age’ brought cooler temperatures and crop failures to Europe at this time. Wine prices rose, which created pressure to find an alternative drink.

Salesmen were peddling ‘false’ juniper water, distilled from grain, durin the early 16th century. Largely unregulated by authorities, the strong juniper flavour masked the harsh off-notes of the grain spirit, and the common man, being the dolt that he was, was thus fooled into consuming an inferior product!

During the 17th century, we start to see medical juniper paired with ingredients we’d recognise as being staples in gin. In *The London Distiller*, written by John French, the author suggests a Water to Procure Sweat with a mixture of dried angelica, marigold flowers, aniseed and juniper. For his lesser Plague Water he recommends a botanical bill, whic adds aniseed, angelica, lavender, elderflower, gentian and mace.

*Apothecary bottles were originally made of earthenware but later on glass was used.*

## Juniper at Port and Sea

Scottish physician James Lind discovered through experiments in the 1750s that citrus fruit was effective in preventing scurvy among sailors. Citrus was originally preserved mixed with rum aboard ships, but by the mid 19th century, Lauchlan Rose discovered how to preserve lime juice with sugar. His patented Rose's Lime Juice became standard issue aboard ships in the Royal Navy. Officers were picking up gin while at port (while the ensigns still had their grog, a 4:1 ratio of water to rum), and mixing their daily lime rations with it.

In the 1820s, German doctor Johann Gottlieb Benjamin Stewart saw an opportunity while living in Angostura, Venezuela. With all of the foreign navies using the city as a port, he created a bitters recipe and subsequently advertised it as a cure for seasickness. A little bit of Pink Gin did indeed help the bitter medicine go down.

Another gin drink which evolved out of a medical necessity was the Gin and Tonic, but the full history of that classic drink is explained further in the Drinking of Gin chapter here.

## The Bitter Truth

Modern medical and scientific capabilities have verified that juniper does indeed have some medicinal properties. In 2005, scientists at the University of Zagreb found that *Juniperus communis* essential oil has some antibacterial and anti-fungal properties. Meanwhile, scientists in Macedonia found that the berries of a local juniper, *Juniperus oxycedrus*, was equally effective, and in 2013 scientists in Egypt and Saudi Arabia found that oils in *Juniperus phoenicea* were capable of protecting the live

Gin might not stop the plague, repel a snake, nor save the world, but it does taste good. So at least it's got that going for it.

# Proto-Gins

In looking to history for the absolute first objective origins of a gin, we end u going down a lot of side roads. For in a world before gin was conceived, what did a ‘proto-gin’ look like? Certainly the idea that juniper berries could be drunk outside of a medicinal context is one consideration. But fo the purposes of this section we define a proto-gin as a combination of juniper berries and alcohol. Following this trajectory, we can see that throughout history juniper was used in conjunction with several other alcoholic substances including wine, mead and beers. It not only illustrate the wide range of experimentation that existed globally, but also suggests that it was perhaps inevitable that juniper berries would one day be combined with a neutral grain spirit.

## Pliny the Elder’s Proto-Gin

If we set our criteria as a ‘substance that could in theory get you drunk flavoured with juniper’, one of the first proto-gin recipes we encounter wa written in the first century ad. Born in ad 23, Pliny published his magnum opus *Naturalis Historia* in ad 77–79. Among the volumes are works on botany, astronomy and medicine. It’s here in Book 24 that we see something which bares only the faintest resemblance to gin:

*[Juniper] is prescribed for convulsions, ruptures, griping pains in the bowels, affections of the uterus, and sciatica, either in a dose of four berries in white wine, or in the form of a decoction of twenty berries in wine.*

A decoction is created by boiling something until its essence is extracted Boiling juniper berries in wine concentrates the flavours by extracting the volatile aromatic compounds, resulting in an intensely bright

pine/coniferous flavour resembling gin. The husks of the berries are often filtered out after the decoction.

*Pliny the Elder authored many books that formed the Naturalis Historia, published in AD 77–79.*

## Proto-Gin for the Common Man

By the Middle Ages, juniper was continuing to be used as a substitute for pepper by the lower classes: one use of the berry that endured for centuries, due to the latter's rarity. There's a faint hint here of juniper becoming subversive, giving the common folk a small taste of the aromatics and spices often reserved for those with the means to afford it.

To see another example of this, we look north to the Nordic countries of northern Europe. What Hannele Klemettilä described as the 'common man's wine' was in fact just mead flavoured with juniper berries. The tradition of flavouring drinks with juniper continued to evolve. Perhaps this drink is a medieval percursor to Sahti, which evolved into Finland's folk beverage and is one of the oldest styles of beer still being made and drunk today. Authoritatively, Sathi's production can be dated back to the 14th century.

Sahti is often made with juniper berries in addition to hops, which are used as a flavouring agent. In a traditional preparation, the spirit would also be filtered through juniper twigs and served in a vessel made of juniper wood. What is interesting is that although Sahti is more of a beer than a gin, it's perhaps one of the first pieces of evidence we have that juniper was used to flavour drinks that were designed to be consumed recreationally. In southern Europe, juniper continued as a medicine and an apothecary ingredient, but we're not that far from a point where others would soon join the Finns in enjoying drinks that included the flavour of juniper in them.

## Monastic Proto-Gins

An oft-repeated historical anecdote says that the next proto-gin was being distilled in Italy in the 11th and 12th century AD. The monasteries were a place of research and exploration, and these monks were experimenting with medicine rather than recreational spirits. The techniques required for distillation were likely understood by way of others having learned the art somewhere in the Middle East, by way of Abu Musa Jābir ibn Hayyān, a

Persian scientist alive during the Islamic Golden Age of the eighth centur AD, who is credited with the invention of the alembic still.

The monks were busy experimenting with distilling wines rather than distilling their own grains from scratch. These spirits distilled for medical purposes were then made either more palatable or more medically effectiv by the addition of herbs grown in the region. Drinks historian Geraldine Coates notes that it is very likely that juniper was among those ingredient with which they experimented since it 'grows rampantly all over Italy'. A of now, our most recent proto-gin was a pot-distilled wine flavoured by the herbs and botanicals of the Italian countryside. It is highly likely that included other native plants such as heather, sage and rosemary, although the ingredients available in monks' medicinal utilitarian gardens were much wider than this.

It's within this pharmacological tradition that we get the origin of the term 'aqua vitae' – which means 'water of life' – and later gave birth to th names of several spirits, including whisky and aquavit. Although they didn't have the word for it, it's highly likely that monks were distilling something that, by the legal definition, could be called 'gin'.

This same proto-gin would continue to be made throughout the following centuries and would make an appearance in the mid 16th century as *Geneverbessenwater* (translated as juniper-berry water). This pharmaceutical spirit first appeared in Dutch print in 1552 and was essentially crushed berries, sprinkled with wine, and then distilled in an alembic still.

## Yet another Proto-Gin for the Common Man (sort of)

Antoine de Bourbon, better known by history as the Count de Moret, may seem an unlikely source of drink for the common, everyday, working person. His father, Henry IV, was the king of France from 1589–1610. Before his assassination, Henry consorted with at least four mistresses, in addition to his two wives. His affair with Jacqueline de Bueil, the Countess of Moret, resulted in young Antoine. The king legitimised his

son, who would go on to become an abbot at Saint-Etienne.

His contribution to the history of gin lay in creating a fashion for a juniper berry wine that he is credited with inventing. It's likely that he wa making this wine in the late 1610s through to the 1620s. Though history hasn't left us any detailed notes containing a recipe or ingredients, writers later indicated that it was the consumption of this drink to which he owed his long life and sterling health.

Additionally, due to the cheapness of creating this drink, it was said that Count de Moret called it 'the wine of the poor'. Here we have another example of juniper's widespread availability being invoked to subvert power and grant some sort of luxury to the working classes.

Young Antoine's contributions to gin in helping fuel a fashion for drinking juniper for enjoyment is an important milestone in proto-gins. Not bad for someone who died of battle wounds at the age of 26. We'll give him points for taste and pleasure, but I'm not sure we can give him points for a long life.

# Gin and Trade

THE EVOLUTION OF THE DRY SPIRIT that we know as gin today, and how it evolved from the genevers and burnt wines of the 15th century, can be traced back to trade. So too can the story of why certain botanicals are common in gin

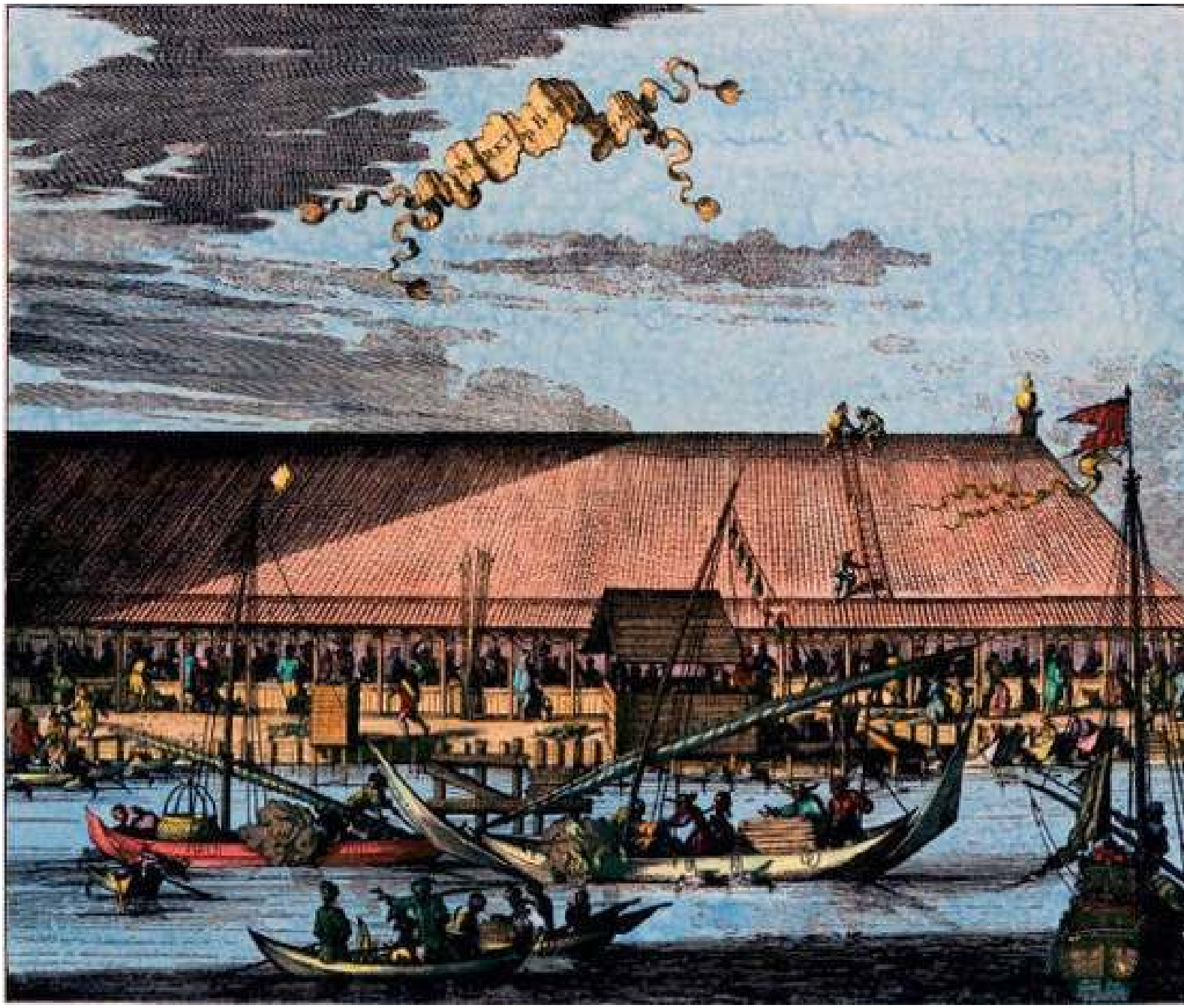
The proto-gins we looked at are all tightly tied to the base spirit. In these cases, it was wine. For parts of Europe that were fortunate enough to be located between 30 and 50 degrees latitude, grapes grew freely and easily. For many of the places in Europe where gin was evolving, such as Germany, the Low Countries including the Netherlands, and the United Kingdom, they were not so fortunate. Here, they were largely reliant on other nations for their wine imports, so as long as their medicinal waters c recreational spirits relied on wine for distillation, they were subject to the whims of war – and the climate. During the period in which the seeds of gin first sprouted, we saw a little bit of both.

In the late Renaissance, Europe was undergoing some pretty significant climate change. The onset of what modern-day scientists call the 'Little Ice Age', a prolonged period of decreased temperatures that affected the world for a few hundred years, began to intensify suddenly in the late 15th and early 16th centuries. One such cold snap resulted in widespread viticultural failures in 1511, and would hit again in subsequent years. Distillers of all sorts were forced to innovate. The move towards grain wa not driven by taste, but by necessity.

They first turned to the next most common source of alcohol that was widely available: beer. Soon distillers were able to coax grains into releasing their sugars through malting. Grain distilling was thus born. An soon brandy sellers would have something to worry about, because grain distillates, although harsh, nasty, brutish and somewhat unpleasant, were cheaper. This was partly because they were unregulated, and partly because suitable grains were grown locally (and distillers could use lower

quality grain that had been rejected for breadmaking). So, with their awfu
tasting spirits, grain distillers sought to compete with the brandy sellers o
the world.

Fortunately for distillers in these regions, they lived in an era of rich cultural exchange, with access to cheaper exotic overseas ingredients. In the early 17th century, the Dutch East India Company was establishing a monopoly over exotic spices like nutmeg, cloves and black pepper. It’s no by coincidence that these once rare luxuries previously only afforded by the wealthy, such as those that had been used in the 1495 proto-gin, were coveted by all, and one day would all be relatively common ingredients in gin.



*The spice trade in the Dutch East Indies was centred around Indonesia.*

Juniper grew locally in all of the regions mentioned above, and therefore was the most widely available botanical. It was also incredibly effective, and so genever was born. Crude grain spirits flavoured with juniper caugh on and became popular in the Low Countries. However, these halcyon days were not to last. Two groups became concerned about this new use o grain.

First, the breadmakers and the nation's rulers had their say. In 1601, in the region that now spans Luxembourg, Belgium and parts of modern-day Germany and France, the ruler Albert VII, Archduke of Austria, and his wife, Isabella, banned distilling spirits from either fruits or grains for