The earliest reference in print to what today is termed syphilis appeared in the
Decree, in German, of Maximilian, King of the Romans and Emperor-elect of Western
Christendom, issued at the Reichstag at Worms on 7 August 1495, and set by a printer of
Cologne. The Decree mentioned a serious epidemic of "evil pocks" ("bösen Blattern"),
which had struck Germany along with the rest of Western Christendom:

Formerly, as the result of blasphemy, famine, earthquake, pestilence and other plagues fell
upon earth. But in these days of ours, as is evident, grievous and sundry sicknesses and
scourges have ensued. Notably In this time there have been severe diseases, and plagues of
the people, to wit the evil pocks, which has never previously occurred nor been heard of
within man's memory.

The specific reference to "evil pocks" was not in the manuscript draft from which the
published Decree derived, so presumably was added for dramatic effect at the printing
stage to underline God's wrath at the prevailing sin of blasphemy. Perhaps with this in
mind the claim that the evil pocks was God's new scourge, in effect an illness previously
unknown, carries more conviction. Shortly (it seems) after the Decree's publication in
German its Latin text was published, with the evil pocks specified as the "the disease
which commonly is called the French evil" ("morbus ... quern vulgo Malum Franciscum
vocant").

An outcome of infection by the "French evil" was putrefaction of the flesh, and the
likelihood of a hideously painful death perhaps within months, it not within a few years.
The Decree reveals that by 1495 this very putrefaction was deemed God's punishment.
The precedent for such an association went back almost a century and a half to that
epidemic which contemporaries had termed the Black Death, when putrefaction of the
body followed with rapidity after death. The natural response to the French evil was to
associate it with sin, in the case of the Decree the sin being blasphemy, and
understandably too there followed attempts to placate God's wrath. Savonarola's
preaching in Florence, in conjunction with an increase in apocalyptic preaching
throughout the Italian peninsula, no less than the German Reformation itself, are
manifestations of the belief in God's anger at human depravity and the need to assuage it.

*   *   *

The impact of printing is reflected in the numerous treatises concerning syphilis
written by a medical profession faced with a new epidemic. These treatises furnish much
information as to what doctors thought about the origins of the disease - and certainly the
consensus was that it was a disease new to the Old World - and about how it was spread
and how it should be created, to the extent that there are even individual case studies.
What follows in this paper derives from the testimony of these treatises, testimony which
is supported by that of contemporary correspondence and chronicles.
The first published medical treatise on the disease was one written by Conrad Schellig, physician to Duke Philip, Elector to the Palatinate, and entitled: *In pustulas malas morbum quern malum de francia vulgus appellat que sunt de genere formicarum salubre consilium*; it was printed in late 1495 or early 1496 by Friedrich Misch at Heidelberg. Not all of the many publications that followed were clinical like that of Schellig, some being literary, the most famous of the latter being Girolamo Fracastoro's Latin poem first published in 1530 - its title, *Syphilis*, providing the name commonly adopted thereafter for the disease. Here a word of caution is necessary: Fracastoro was in fact a medical practitioner of Verona, the distinction now made between a medical treatise and a literary work of fiction not being a Renaissance concept. A Latin poem such as *Syphilis* was deemed just as valid a way of discussing a medical condition and its treatment as was writing a clinical treatise. Indeed the earliest known work on the effects of the disease was a literary one, being a Latin elegy of 385 lines by Angelo Poliziano entitled *Sylva in Scabiem* - which remained unpublished and forgotten until 1954. Poliziano died of "galloping syphilis" in Florence on the night of 28 September 1494, and thus this literary work makes it plain that the Italian peninsula was affected by the disease prior to Charles VIII's army passing down its length southwards in 1495.

In 1496 Sebastian Brant's Latin verses entitled: *De pestilentiali scorra sive mala de Franzos, Eulogium* were published as a broadsheet in Basel. At the centre of the sheet appears a woodcut illustration (fig. 1) showing the Virgin and Child enthroned on a
cloud. In one hand the Virgin holds the Imperial Crown, her arm stretched out towards Maximilian, Emperor-elect, who is below on earth. Maximilian, in full armour, and backed by supporting troops, is evidently about to embark on a crusade, which, in the light of the Decree Issued at Worms, one can suppose to be a crusade directed against blasphemers. The Christ-child, clasped in the Virgin's other arm, is seen to be throwing poison rays at people on earth. As a result, foul lesions are breaking out where the ray touches the bodies of four individuals, so that a priest, a man, and a woman are affected, and already a soldier is dead on the ground. Since Christ is the Son of God, the intention is clear: the disease is portrayed as God's punishment, presumably in this case for blasphemy, is in the Decree. The poem was reprinted in Augsburg shortly after 18 October 1496, supported by a medical treatise on the disease by Dr Joseph Grüpeck, who discussed the disease's causes and suggested a cure. A re-cut version of the original woodcut that had accompanied Brant's poem was incorporated (fig. 2).

![Woodcut illustration, titlepage of Joseph Grüpeck, Tractus de petilentiali scorra sive mala de Franzos, Originem remediaque eiusdem continens, printed in Brant's poem, f. ai, Augsburg, shortly after 18 October 1496]
Also in 1496, as the epidemic spread, a Latin poem on the disease by Theodore Ulsen was printed as a broadsheet in Nuremberg, with a woodcut attributed to Albrecht Dürer at its centre (fig. 3). In this woodcut a syphilitic man is shown, with a constellation above his head and the enclosed date of "1484". The allusion was to a conjunction of the planets on 24 November in that year, when three heavenly bodies of the highest rank, Jupiter, Saturn and Mars, were in conjunction under Scorpio - the zodiacal sign ruling the genitalia. This was an event of great rarity, and on the evidence of the past was judged a presage of fateful events: a decade later it was thought to have foreshadowed the disease of syphilis, sent by God to decimate Western Christendom for its sins - just like the Black Death. There is a further parallel. Shortly after the latter's outbreak, doctors of the University of Paris, following Avicenna's humoral theory, and having noted a conjunction of Saturn, Jupiter and Mars under Aquarius on 20 March 1345, claimed this a portent for the Black Death, caused by corruption of the air. However, it should be noted that, in respect of the onset of syphilis, the year 1484 was not in fact the actual year when God's punishment began, although at least one contemporary claimed this to be the case - this was Pedro Pintor, doctor of Pope Alexander VI, writing in 1499. Selecting the date of 1484 for the onset reflected the wisdom of hindsight: by the later 1490s the disease existed and was accepted as God's punishment, hence it was considered that astrology must have predicted this, just as it had predicted the Black Death. Pursuing astrology further, Pintor predicted that the scourge would end in 1500 - and was proved very wrong. One testimony to the continued spread of the disease is a fresco of about 1506 by Amico Aspertini in the Oratorio of Santa Cecilia, a chapel alongside the Church of San Giacomo Magglore in Bologna, which depicts a sufferer from syphilis. Identified as such by his banner displaying a scorpion.
Grünpeck's treatise of 1496, already mentioned, devoted an entire page to the conjunction of the planets in 1484, and he also provided, in the form of a woodcut (fig. 4), a zodiacal chart over which presided God in Majesty, flanked by two angels - yet further testimony that the disease was assumed to be God's punishment. Augsburg and Nuremberg, where the zodiacal woodcuts were printed, were centres famous not only for publishing works on astrology, mathematics and medicine but also for clock-making, a fact which helps to explain the printing there of these two works on syphilis, each with its zodiacal chart, since contemporary clocks often featured the signs of the zodiac. In the Renaissance period the influence of the starry heavens, especially the major planets, was linked to events on earth. In broad terms, astral theory related to the spiritual and theological as well as to the physical. God acted by means of the stars, which he had left in control of the world, with His intervention only when things went wrong. Furthermore, and understandably given the philosophy outlined briefly above, in the fifteenth century
astrology was closely associated with medicine, and with medical practice. Thus, at a university on the Italian peninsula, for instance, a course in astrology was a feature of a degree in medicine. In Grünpeck's day a medical practitioner was expected to be familiar with zodiacal calendars, horoscopes and prognostications, since even bloodletting was best conducted on a day favoured by the patient's horoscope.

Fig. 4 Woodcut illustration, verso of titlepage of Grünpeck, *Tractatus* … (see caption to fig. 2), f. ai verso, Augsburg, shortly after 18 October 1496

By 1496 the Impact of the new disease was clearly evident in Germany; however, it was not localised there, but, as will be shown, by then had already spread into other parts of Western Christendom. By 1500 it was also rife in Eastern Christendom and in the Ottoman Empire. Marcello Cumano was a physician with the Venetian contingent sent to support the army of the League of Venice (signed 31 March 1495), whose objective was to drive the French from the Italian peninsula. By September 1495 Cumano was attending Italian forces at Novara, and he has left us a description of the epidemic of syphilis that he witnessed there. The chief medical officer of the Venetian force, Alessandro Benedetti, also described the disease as it affected the troops. Local chroniclers of the
Italian peninsula signalled with horror the advent of the epidemic, thereby enabling its spread to be charted today; French chronicles provide like information. These all make it plain that, by 1496, the disease was rampant on the peninsula and in France. Like Cumano most of the chroniclers stress that it was a new scourge.

* * *

My intention in this study is to show that syphilis was indeed new to the Old World. I will examine its origins, which I consider linked to the discovery of the New World in 1492, and I will seek to show how it spread quickly in consequence of the Italian wars. Finally, I will consider some of the early treatments for the disease, and refer to three case-studies. All my examples will be confined to the late fifteenth and early sixteenth centuries and will not trespass beyond 1530.

In Germany by 1495, as already seen from the evidence of the zodiacal chart, and on the Italian peninsula by July 1496, on the evidence of the Diarii of Marino Sanudo, it was appreciated widely, and not merely by medical practitioners, that the epidemic was spread most commonly by sexual intercourse. Given the somewhat primitive hygiene of the day, the disease may also have occasionally spread by other means, such as by infection from clothes and from utensils used for food and drink. By 1527, however, syphilis was almost universally bracketed with gonorrhoea as a sexually transmitted disease, and it was in that year that Jacques de Bethel-court included both under the heading "venereal disease", the phrase still associated with them. Even so, from the very first syphilis was distinguished from gonorrhoea, and the former recognised as a new disease. Gonorrhoea is an ancient disease. Presumed references to it occur in the Bible. Moses, aware of the disease, recommended the segregation of those infected, urging bodily cleanliness and washing after sexual intercourse (Leviticus XV). Again, at a time when the Israelites were fighting the Midianites, all women prisoners who had coupled with Israelites were to be slaughtered (Numbers 31), apparently because they were judged to have spread the infection now termed gonorrhoea. King David with his sores may have suffered from gonorrhoea (Psalm 38). In 1502, Juan Almenar from Valencia, seemingly in medical practice in Venice, published in that city a treatise on syphilis: *Libellus ad evitandum et expellendum morbus gallicum, ut numquam revertatur ...*, in which he gave practical advice along the lines suggested by Moses, warning a couple to wash their genital organs with hot water or white wine after sexual intercourse, drying themselves with their nightshirts or a clean cloth, but never with material belonging to prostitutes.

The medical authorities of Antiquity, such as Hippocrates and Galen, wrote about gonorrhoea, arguing that the constant loss of semen by men suffering from it vitiated their strength. Their writings were, of course, familiar to Renaissance doctors. The Arabs had devised various remedies for this illness, that of Albucaisin, the one most popular among the medical profession in the Western Christendom from the twelfth century, involved saltwater injections. As gonorrhoea from Antiquity was associated with sexual intercourse and the sexual organs, in the Middle Ages laws of countries and of cities dealt with the disease in the context of prostitution. For instance, in 1161 an English law prohibited brothel keepers in Southwark from "keeping women who were suffering from
the perilous infirmity of burning". This refers to the French term for the disease, "hot piss" ("la chaude pissé"), which had come into usage in England following the Norman Conquest. It referred to the discharges from the penis and the burning sensation experienced in urinating, symptoms of the disease. It was this disease to which King Edward IV referred after his brief campaign in France in 1475, stating that he had "lost many a man that fell to the lust of women and were burned by them, and their penises rotted away and tell off and they died".

Fig. 5 Woodcut illustration, titlepage of Bartholomew Sterber, *A mala franzos morbo gallorum, praeservatio ac cura*, Vienna, Johann Winterburg, probably 1497

Gonorrhoea was very different from the French pocks or syphilis, as the descriptions of the latter such doctors as Schellig, Grünpeck, Cumano and Benedetti all make plain; the woodcut illustrations, crude though they are, confirm this point. In syphilis lesions break out over the whole body. A woodcut in Bartholomew Steber's *A mala franzos morbo gallorum, praeservatio ac cura*, printed in Vienna by Johann Winterburg, probably in 1497, provides the first medical illustration of two doctors clinically examining a couple with syphilis (fig. 5). One doctor is examining the woman's urine, the other is applying ointment by means of a spatula to the husband's legs. Both patients are covered with spots, to be identified as the lesions of syphilis. The cause of these lesions is a microscopic corkscrew-shaped bacterium, which enters the body through the skin or mucous membrane, usually during copulation. It circulates in the bloodstream, where it multiplies. After an incubation period of from five days to five
weeks, the first phase of the disease is manifest in the form of circular lesions of the skin, as shown in the early woodcuts. In the second phase of the disease disorders of all kinds develop: bones and joints are painful, cardiac palpitations may occur, the circular lesions become ulcers, and the hair of the affected individual falls out in patches. In the third and final stage, which may be some years later, the flesh rots from the bones, eyesight is affected, and there may be brain-damage before death. From the beginning of the second phase those contaminated with syphilis suffer wracking pains, particularly at night. In the period under consideration many of those with the disease soon died in agony from it, although others lived on thanks to a partially effective remedy and a very strong constitution. It was very quickly appreciated that an infected mother passed on the disease to the baby in her womb, and that an infected baby could pass the disease to a wet-nurse.

In the fifteenth century the French pox was associated with leprosy to the extent that both, like the Black Death, were thought to be God's punishment for evil on earth. Niccolò Leoniceno, professor of medicine at the University of Ferrara, a physician with an international reputation, published in 1497 his Libellus de epidemia, quain vulgo morbum gallium vocant (Venice, Aldo Manuzio), in which he examined at length, in clinical terms, the idea that syphilis was a form of leprosy, or one of the latter's allied diseases known in Antiquity; he concluded against the idea. But Natale Montesauro, a doctor of Verona who was himself infected, wrote a reply: De dispositionibus quas vulgaris mal framoso appellant tractatus (Bologna, Gentile de' Rossi, 1498), maintaining that the disease of the French pox had certainly existed in Antiquity. Medical opinion with few exceptions appears to have accepted Leoniceno's negative conclusions.

A disease related to syphilis, the tropical disease known now as yaws, needs a brief consideration. Yaws, a skin disease actually caused by the same microbe which produces syphilis, flourishes in a very hot, damp, climate such as that of West Africa. From the mid-fifteenth century, as Portuguese exploration pushed south along the Guinea coast, African slaves in ever increasing numbers had been introduced into western Europe, especially into the Iberian and Italian peninsulas. While Africans obviously affected with yaws were likely to rejected as slaves, it is possible that some sufferers were introduced inadvertently into Western Christendom prior to the onset of the syphilis epidemic. Yaws, however, has certain characteristics quite unlike those of syphilis, and hence is not likely to be confused with it. As Claude Quétel (History of syphilis, p. 258) states:

contamination is non-sexual; there are few or no primary symptoms (what symptoms there are being confined to cutaneo-mucous disorders); a good general state of health is maintained, except in the infrequent cases of late lesions of the tertiary type, especially of the bones.

It does not appear that yaws made any significant impact either on the community of Western Christendom at large, or on its medical practitioners. Contemporaries certainly did not associate it with syphilis, or with the latter's origins. For instance, in the debate as to the origins of syphilis that flourished in the years following 1498 among the medical profession of Leipzig - notably on the part of Simon Pistor and Martin Pollich of Mellerstadt - yaws had no place.
It has been shown above that by 1496 in Germany, on the Italian peninsula, and in France, syphilis was thought to be a new disease. It was invariably called by the Germans, and usually by the Italians, the "French pox"; some Italians termed it the Spanish disease. The French called it the Neapolitan disease. The Portuguese specified it as the Castilian illness. By 1500 it was referred to in Poland as the German disease. The Turks called it the disease of the Christians, while the Persians, who bordered the Ottoman Empire, referred to it as the Turkish illness. Following Vasco da Gama's voyage of 1497-1498, the Portuguese carried the disease to the Indian sub-continent, and eventually to Japan; hence in India and Japan it was called the Portuguese disease. Syphilis did not reach the South Pacific until the late eighteenth century; in Tahiti, because it was introduced by British sailors, it became identified as the English disease.

The spread of the disease across Western Christendom and beyond its borders to the east was very rapid. By 1495 the Iberian and Italian peninsulas were already seriously affected by syphilis, and it was spreading rapidly in France; in that same year it had made its impact in Germany and had reached the present-day Low Countries and Greece. By 1497 it was rife in lowland Scotland and had reached England, eastern Europe and the Balkans. By 1500 it was affecting the Ottoman Empire and Persia. In Western Christendom the Iberian and Italian peninsulas and France were the epidemic's epicentre, and its initial impact as it spread was virulent and deadly. By 1520, it appears to have become less contagious, at least in Western Christendom, and so much less serious in its dramatic effects that it was believed that it would soon totally disappear. There is no knowing how many died of the epidemic in Western Christendom in the first quarter of a century or so after 1493 - to anticipate the date when it first appeared there - or how many were affected and recovered. But it may well be that the population increase that represented a slow recovery after the Black Death of the 1340s, an earlier disaster that had reduced Europe's population by some thirty to fifty per cent, was momentarily checked.

Where and when did the disease originate, and how was it that it spread with such rapidity? In his work published as Tractado contra el mal serpentina: que vulgarmente en España se Uamado bubas ..., Ruy/Rodrigo Diaz de Isla, a Portuguese doctor, stated that he had treated a number of Columbus' crew for the disease at Barcelona, apparently after Columbus' first return from Hispaniola (present-day Haiti) and hence presumably in 1493. The original manuscript of De Isla's work exists in the National Library, Madrid, and two somewhat different texts of it were printed at Seville, the first in 1539, the second in 1542; the manuscript itself contains passages not in either printed edition. One such omitted passage is De Isla's statement that the pilot Pinzon suffered from syphilis immediately on his return. Two Pinzon brothers of Palos were on the expedition with Columbus; Martin Alonso, the elder, commanded the 'Pinta' and died at his home in Palos a few weeks after his return from the West Indies. Probably therefore it was Martin to whom De Isla referred. On the return journey across the Atlantic, early in 1493, the 'Pinta' separated from the other remaining vessel in an Atlantic storm and put in at Bayona on the northwestern Spanish coast, before sailing on to Palos. Since De Isla makes it evident that Columbus' sailors brought the disease to both Palos and Barcelona,
where no doubt the brothels became infected, it is possible that another centre of dispersion of the disease was Bayona in northern Spain. (When Columbus' own ship reached Lisbon, its first port of call on return, only Columbus himself was allowed to disembark, in order to visit the King of Portugal, so presumably the disease did not immediately affect Portugal.) Since, as testimony of the success of the voyage, Columbus brought back a number of Amerindians. It is possible that some of them, as well as Columbus' sailors, initiated the spread of the disease within Spain. In the West Indies syphilis was endemic, though in a less malignant form than that which it was to take in the Old World. In consequence of Columbus' second visit to the West Indies in 1493-1496, and subsequent Spanish voyages there, more crew-members were infected by contact with native women, and these reinforced the spread of the epidemic on their return to the Old World.

The missionary Bartolome de Las Casas, resident in Hispaniola from 1498 for a number of years, in his *Apologetica historia sumaria* (an offshoot of his great *Historia general de las Indias*, both works completed c. 1560 but remaining in manuscript until 1875 and 1909 respectively) stated categorically that the disease originated in Hispaniola and was brought to the Old World by Spanish sailors. Gonzalo Fernandez de Oviedo y Valdes, who for a year from May 1514 had been comptroller of the Spanish gold mines in Darien, published in 1526 his *Oviedo de la natural hysteria de las Indias*, printed in Toledo by Remo de Petras, and in this work he, like Las Casas, claimed that syphilis originated in the New World, although he wrongly associated its introduction to the Old World with Columbus' second voyage, rather than the first. By the 1520s even staunch Catholics were tending to look elsewhere than to God's punishment for the epidemic's origins. The American origins of the disease were soon to be accepted by such scholars as Giovanni Battista Ramusio. The most influential supporter of this origin, beyond doubt, came to be the Florentine historian Francesco Guicciardini, who wrote his *Storia d'Italia* between 1536 and his death in 1540 – his statement about the disease will be quoted shortly.

Two pieces of evidence by contemporaries that appear to deny the American origin of syphilis require examination. First, Columbus himself did not mention the disease as affecting his sailors, or indeed even note that it existed in the New World. Yet it is certain that his crew was contaminated and equally certain that the disease was endemic in Hispaniola. What may be deduced from Columbus' silence on this matter is that he desired to promote the advantages of his discovery rather than mention inherent dangers. On the face of it, a more serious objection to American origins is the mention of the epidemic in a supposed letter written by Peter Martyr of Anghiera (Duchy of Milan) to a professor of Greek at Salamanca and dated 3 April 1488. The letter is known only from Martyr's published letter-collection *Opus Epistolarum*, published in Amsterdam by Daniel Elzevir in 1670. This collection, although undoubtedly based on genuine letters, was heavily edited and should be deemed a history in the form of letters. Significantly, the reference in the letter to syphilis refers to it as being known to the Italians as "*morbus gallicus*", a term in actuality adopted only after the French had captured Naples in early 1495. Hence as far as the letter's reference to syphilis is concerned, the date 1488 cannot be correct and the whole reference therefore appears to be a late insertion.

As already stressed, the clinical and common contemporary view was that syphilis was new to the Old World. No evidence yet known indicates that syphilis existed in
Western Christendom prior to 1493. Examination of human remains in relevant museum collections has produced no syphilitic Old World skull that pre-dates 1493. For instance, Sir George Elliot Smith examined several thousand Egyptian mummies specifically to detect evidence of syphilis in ancient Egypt, but found none. The plague of boils and blains suffered by the Egyptians when they held the Jews in captivity (Exodus XV) was therefore not syphilis. It is equally certain that syphilis was present in the New World prior to the arrival there of Columbus. This conclusion derives from an examination of many skulls and other bones of pre-Encounter North American Indians and Indigenous Mexicans (Aztecs) and Peruvians (Incas), each group including specimens that show the pitting that bears testimony to syphilis.

*   *   *

The decisive factor in the rapid spread of the disease in Western Christendom after its initial introduction into Palos, Barcelona and perhaps Bayona was the commencement of the so-called Italian wars. This promoted the second wave of the epidemic and resulted in its wide diffusion. By November 1494, King Charles VIII of France commanded an army of some 20,000 men, comprising French troops, many mercenaries (notably German, Swiss and Scottish contingents), and a force of Italians furnished briefly by the Duke of Milan. This force advanced southwards from the Duchy of Milan towards the Kingdom of Naples, which Charles VIII claimed. Possibly a few of the French troops were infected by syphilis before they left France and elements of the whole army may have picked up the disease in northern Italy. It is therefore plausible that prostitutes in Rome were infected in late December 1494-early January 1495. In mid-January 1495 the surrender of the city of Naples to the French army was followed by several weeks of debauchery. In May 1495 the army of the King of France, reduced by disease and desertion, began making its way back towards the Duchy of Milan and France. The force was then encumbered with carts laden with booty, and with a host of camp followers including prostitutes and other Italian women who had been raped or seduced by the soldiery. A detailed engraving made shortly after the Battle of Fornovo on 10 July, the work almost certainly that of an eyewitness, portrays these women in the baggage train (fig. 6).
Contemporary evidence stresses that it was the fall of Naples and the return of the victorious French army that spread the epidemic with such rapidity. The French monarch was lecherous and en route to Naples selected women for his sexual desires. It seems possible that he was already infected with syphilis when he was taken ill at Asti on 13 September 1494; it is likely that he infected his wife, Anne of Brittany, on his return to France the following year. Charles had permitted his troops sexual licence by right of conquest in Naples and also within the Kingdom of Naples, as the latter passed under his army's control. When soldiers in the army became infected and ill, they deserted and made their way home, no doubt spreading the epidemic as they travelled.

However, syphilis was already in Naples by the time the French arrived. How was this? What was the link with Columbus' first voyage to the New World? We have seen that Columbus' men infected Barcelona, the main port of the Kingdom of Aragon. This kingdom controlled the Balearic Isles, Sardinia and Sicily, and until 1458 had held the Kingdom of Naples. Even after the two kingdoms became separate entities in 1458 trading links remained close. Moreover in 1493, Ferrante d'Aragona, King of Naples, aware of King Charles VIII's preparations to invade Naples, sought mercenary troops from the Kingdom of Aragon. It is likely that these troops came to Naples by way of Barcelona. Hence it is plausible that syphilis had spread to Naples from Barcelona, through infected sailors, soldiers and prostitutes, in the months prior to the arrival of the French army. Poliziano's death from the disease in August 1494 in Florence confirms that syphilis had some hold on the Italian peninsula even before the passage of King Charles' army. Nevertheless, the licence of the French forces over a four-month period spread the disease with rapidity through the Kingdom of Naples and accelerated its spread elsewhere. The spread of the epidemic on the Italian peninsula as the French withdrew north was charted in detail by historians a century ago. An illustration of this spread has already been provided by reference to Cumano's treatment of soldiery outside Novara in late summer 1495. Cumano claimed that the infection was a result of the French occupation of Novara, presumably implying that the disease spread from the French to the opposing army because of prostitutes who crossed the lines.

With the dispersal of the remnant of the French army in the late summer of 1495 the epidemic spread beyond the Italian peninsula with renewed impetus. Maximilian's Decree of early August is evidence that the epidemic had then reached Germany, and we may suppose that it was brought by disbanded soldiers. The Swiss Confederation, which had also provided mercenaries, was similarly affected. In January 1496 the authorities of the City of Geneva ordered that those infected ('de infectis gorre' - despite this reference to gonorrhoea the disease was undoubtedly syphilis) be not permitted to enter the city, while those within it who were affected were to be quarantined. By 17 May an edict in
the name of the Confederation sought to limit the epidemic of "foul spots" brought by soldiers returning from the wars, by imposing a series of co-ordinated measures similar to those imposed in Geneva.

The epidemic spread with rapidity in France, possibly after that country was first contaminated by contacts with northern Spain. Under the year 1496 the records of the Studium of Manosque mention the disease, specified in its Spanish form as "las bubas", and they claim that it had spread from Romans in the Dauphiné as far as Provence because of the movement of men-at-arms in the service of Charles VIII and of the Duke of Orléans. On 27 March 1496 the authorities at Lyons reached agreement with the royal officers to expel from the city those suffering from the "great pocks". By April Besançon was having to deal with the epidemic. During the autumn the Hôtel-Dieu in Paris was caring for an ever-increasing number of sufferers from the "great pocks of Naples"; by the end of the year it could no longer cope with the numbers, and had to turn sufferers away, so these lived in make-shift shelters around the Cathedral of Nôtre-Dame.

In 1495 Perkin Warbeck, pretender to the English throne, was given hospitality by King James IV of Scotland, who was eager to exert diplomatic pressure on King Henry VII. Warbeck gathered in Scotland a force of some 1,400 mercenaries of various nationalities, his object being to take this force to England and overthrow the Tudor sovereign. It is likely that in this force were Scots who had fought under Charles VIII - the king's personal bodyguard comprised the Scots Guard - along with other men who had served in the French expedition to Naples. Warbeck's force was based near Aberdeen. By 22 September 1497 the epidemic of syphilis (termed "grandgor" from the French, i.e. "big gonorrhoea") had reached such proportions in Edinburgh, Scotland's capital, that James IV decreed that all syphilitics were to leave it for treatment on the Isle of Inch Keith in the Firth of Forth; anyone infected who had not reached the Island by dusk the following Monday "shall be burnt on the cheek with the marking Iron". The burghers of Aberdeen had already introduced similar measures as early as May 1497 to deal with what was specified as "the infirmity come out of France and strange parts", adding that "all light women desict from their vices and syne of venerie". Ten years later Aberdeen was still seeking to cope with the epidemic, and its authorities ordered that "diligent inquisition be taken of all infected persons with the strange sickness of Naples", and quarantine restrictions were imposed on these "for the safety of the town". Thus contemporary evidence testifies to the new epidemic having spread especially from Naples and as a result of troop movements.

We return to Guicciardini. His Storia d'Italia, published twenty years after his death, was the first history since Antiquity to cover the events of the entire peninsula, rather than to focus on a city or a city-state; the period the history covered was from 1492, when the author was nine years old. In Book II, Chapter 13, Guicciardini wrote that when the fate of the entire peninsula was dependent on the outcome of the French invasion of 1494, "the disease the French call the Neapolitan sickness, and the Italians commonly call 'buboes', or the French sickness, made its first appearance". He went on to give a remarkably accurate account of the course of the epidemic.

It showed itself either in hideous boils, which often became incurable sores, or with intense pain in the joints and nerves all over the body. The doctors, who knew nothing about the disease, did not employ suitable remedies, but quite often wrong ones which made the symptoms much worse. Many people of every age and both sexes died of it, and many others
were hideously deformed and became helpless and subject to almost continual agonies of pain. Indeed most of those who appeared to have recovered in a short time fell again into the same misery. However, after many years the influence of the stars, which had made the disease so virulent, was mitigated, or the appropriate cures for it became known through long experience, and it became much less malignant.

Guicciardini stated bluntly that the contagion was almost always passed on through sexual intercourse. It was brought, he believed, from Spain to Naples, and had reached Spain in consequence of the voyages of Columbus. He concluded:

In those islands where Columbus landed, this malady finds a prompt remedy through the benevolence of nature: for they cure it easily, simply by drinking the juice of a tree distinguished for its many remarkable properties.

Before examining the remedies, such as the guaiacum bark, to which Guicciardini was alluding, it needs must be stressed that since the epidemic was believed initially, at least, to be God's punishment, the first response was to seek a cure by prayer, or to seek protection from the disease by prayer. Above all, intercession by the Virgin Mary was sought, as illustrated in a woodcut for Conrad Roller's Mortilogus, printed in 1508 (fig. 7), where the emphasis is patently on the Virgin's prophylactic powers.

Fig. 7 Woodcut illustration, titlepage of Conrad Reiter, Mortilogus, 1508 (reproduced from Claude Quétel History of Syphilis, Oxford, 1990, p. 14)
In the New World syphilis was much less virulent, and there existed at least a partial cure in the form of guaiacum bark. The use of this as a cure was advocated in a pamphlet by Leonard Schmaus printed in Salzburg with the colophon date of 17 December 1518, where it was stated that God by His Grace had indeed provided a cure for the disease in the very place where it was endemic. This is in itself evidence that by then at least one contemporary doctor believed the disease to have originated in the New World. By the early years of the sixteenth century those Spaniards left to control Hispaniola had discovered that natives suffering from syphilis used as a cure decoctions of the wood of a certain tree; this tree the natives called "guayacum". Infected Spaniards used it on themselves, and found relief. If one accepts the account of Francisco Delicado, writing in 1525, by about 1508 the wood was being imported into the Iberian peninsula. Schmaus claimed that by late 1518 the bark had cured 3,000 sufferers in Spain (presumably hopeful guesswork). One year prior to Schmaus' publication, Dr Nicholaus Pol, a physician to Maximilian, King of the Romans, based at Innsbruck, had submitted a report on this cure, dated 19 December 1517, to his patron, Cardinal Lang, who appears to have himself become syphilitic. It is likely that Pol had recently been on a mission to Portugal and to Spain; certainly he wrote favourably of the cure on the basis of personal knowledge. In his report, which was not printed, he too claimed that syphilis was not endemic to the eastern hemisphere but had been introduced there from the New World; he dated the event to 1494. Meanwhile, on 22 June 1516 a receipt for the decoction of the bark of guaiacum had come into the possession of Giovanni Lorenzo of Sassoferrato, who taught in the Medical Faculty of the University of Perugia. This receipt was sent to him by a spice dealer of Seville. A similar receipt was published anonymously, in Augsburg, about the time that Schmaus' treatise appeared, in late 1518.

In April 1519 Ulrich von Hütten's *De Guaid Medicina et Morbo Gallico* was published in Mainz. Von Hütten was a best-selling author, whose satirical *Letters of Obscure Men*, published in 1516, had pilloried the practices of the Catholic Church and done much to pave the way for Luther's 95 theses of 1517. Von Hütten was a doctor, and his treatise on syphilis described dramatically his own infection through sexual intercourse with a prostitute; he detailed the tortures that he had endured from the disease and from the supposed mercury cure. Finally he had turned to Paul Rictus of Augsburg for treatment with guaiacum, and he reported in his publication that he was cured. Dr Ricius was another of Maximilian's physicians and, like Pol, he may have visited Iberia, perhaps accompanying the latter. The promotional effect of Von Hütten's treatise was considerable, at least in the short-term, and the use of the wood as treatment for syphilis was to continue for some four hundred years. Von Hütten was not, however, cured, and within a few years the final stage of the disease developed and he died. Meanwhile the Fuggers of Augsburg, successful international businessmen, had seen the financial possibilities of the cure, and they may have funded Pol's presumed visit to Iberia. They certainly came to possess his report to Cardinal Lang and they acquired a virtual monopoly of the importation of guaiacum bark - possibly the earliest instance of a pharmaceutical monopoly. The Fuggers sold the bark at considerable profit, while
proposing to use part of the proceeds to help finance expeditions against the Ottoman Turks, as projected by the new Emperor, Charles V, in the early 1520s. Although in the following decade the treatment fell somewhat out of favour, in the mid-1520s it was termed "The Blessed Tree", as the titlepage of Francisco Delicado's work demonstrates, with an Illustration of both the Virgin and St. James providing bark to supplicants (fig. 8).

Von Hutten's treatise referred to the so-called mercury cure, which had been introduced as a treatment for syphilis as early as 1494. Authorities of Antiquity, notably Discorides and Galen, had warned against the medicinal use of mercury, since it was a poison. However Arabic medical practice introduced it successfully into Western Christendom in the form of anointment, known as Unpentum Saracenicum, for the treatment of scabies, previously thought by European doctors to be incurable. Apparently because syphilis produced lesions and in its second stage ulcers on the skin, the ointment was tried in the hope that syphilis was a severe form of scabies. The ointment came to be used with different proportions of mercury, and with varying degrees of success; a fortieth did not greatly alleviate, but up to an eighth achieved, at least initially, what appeared to be a dramatic cure. But the longer-term consequences of this high dosage tended to be the production of gangrenous symptoms, a state of affairs as disastrous as the disease. The woodcut on the titlepage of Steber's publication of about 1497 (fig. 5) illustrates mercury being used as an unguent, a treatment advocated by Steber as curative. Syphilitics were also treated by having mercury injected into the bloodstream, by fumigation, and by taking the mercury pill. Von Hütten's publication of 1519 caused guaiacum to displace mercury as a form of treatment for a decade or so, although in the immediately following decade mercury came into vogue again (together with other supposed cures, including China root and sarsaparilla, but these fall too late for the scope of this paper).

Diet was considered an important factor in curing a disease. Peter Martyr of Anghiera commented on this in 1530, claiming that doctors reduced patients to such a dullness by fasting "that I should think a thousand kinds of disease might be eliminated without drinking the decoction of guaiacum". For his part, Dr Pol, who in his report categorised the Germans as heavy eaters and drinkers, was opposed to a dramatic reduction in food intake for syphilitics, instead specifying at length what kinds of food they should eat. Von Hütten maintained that the disease was spreading in Germany because of the Germans' gluttony, and because they ate imported foods. As a result, their constitution was weakened, and a physical state brought about which ill-suited German gravitas. He admitted that guaiacum was a foreign importation, but argued that it was a simple honest medicine from a primitive region, where there were no doctors. Nevertheless he believed that taking the decoction of guaiacum should be accompanied by a rigid diet as well as by firm moral self-discipline.
The explanation of Girolamo Fracastoro's cure, expounded in his poem *Syphilis*, throws further light on the importance that medical practitioners attached to diet, as well as to other considerations. His poem, published only in 1530 but written in the early 1520s, reveals his approach to the disease, as well as describing his practical attempts to cure patients in the period since guaiacum had come into favour as a treatment. Fracastoro was a devotee of Galen, who had distinguished four elements: fire, water, earth and air, with each having four qualities: heat, moisture, dryness, and cold. Galen thought that disease was due to the quality of the elements and varying mixtures of the four humours to be discerned in every human being - blood, phlegm, yellow bile and black bile. An excess of any humour determined the treatment to cure the disease, since the humour had to be brought into balance again with the elements. Treatment, accordingly, consisted in opposing disharmony of the humours with the requisite drug and diet. A disease that was testimony of heat, manifest in sweating and high fever, was opposed by a 'cold' drug, on the Hippocratic principle of *contraria contrariis curantur*. Fracastoro's treatment for syphilis was based on these concepts and on the so-called six *non-naturalis* of Galen. These were those things necessary to life and health, but which if wrongly used caused disease. The six were: (1) air, (2) food and water, (3) sleep and wakefulness, (4) rest and exercise, (5) retention or excretion, (6) mental attitude. Under (1) Fracastoro advised syphilitic patients to avoid the hot south wind (the sirocco), and to select sunny aspects with cool northern breezes. Under (4) he advocated exercise, rather than rest. Under (2) it was necessary in most cases to avoid fish, also milk, vinegar and
wine. Fumigations of amber and frankincense were advantageous; finally, mercury was to be injected. Obviously Pracastoro took as his model for medical practice that of Antiquity, merely abandoning it as far as the mercury treatment went.

* * *

In conclusion, three case-histories are informative. I do not suggest they are typical, but they may indicate how wealth could assist in prolonging a syphilitic's life, just as they throw yet further light on treatment and what a patient could endure. First, the case of Cesare Borgia, the illegitimate son of Pope Alexander VI. In August 1497 Cesare, aged almost twenty-two, was a cardinal, and as such was sent by his father as Papal Legate to Capua, in order to crown Federico d'Aragona as King of Naples. The kingdom was a papal fief, and at that time the pope was supporting the d'Aragona line rather than the Angevin claimant, Charles VIII of France. From Capua Cesare went to Naples, arriving on 14 August. There he was reputed to have spent a colossal sum to buy the sexual favours of the city's most famous beauty. A week later he returned to Rome, where within a few days the early symptoms of syphilis were diagnosed. He was treated by the pope's Spanish physician, Gaspar Torella, titular bishop of Santa Glusta, whose treatise on the disease of syphilis, *Tractus cum consilus contra Pudendagram, seu morbum Gallicum* (Rome, Pietro della Torre), was subsequently published with the colophon date of 11 November 1497. This work was dedicated to Cesare because, illustrious prince, you asked me what might be this pestilence some call the disease of San Semente, the French call the Naples pocks, or great pocks, and the Italians the French disease; and [I write this treatise] since you asked me if doctors have written on the subject, and why no specific treatment has been discovered.

Torella recorded the five patients suffering with syphilis (termed by him *pudendagram*) he had already cured - or so he believed. The earliest was a certain Niccolo Valenzio, who had been infected, after sexual intercourse, in August 1496. The symptoms of the first stage of syphilis were detailed and from October, when Torella was first consulted, a four-month treatment had resulted in a complete cure. Torella advised that if the penis was ulcerated, it was to be washed with soft soap, or there was to be applied to it a young cockerel, or a pigeon, plucked and flayed alive, or alternatively a frog cut in two. Torella was opposed to mercury treatment, prescribing instead milder ointments, potions, and sweating in hot baths, but maintaining as professional secrets his exact recipes for the ointments and potions. It is not known what treatment Torella adopted for Cesare, and equally for some of Cesare's staff who were also ill with the disease. However, in his treatise Torella maintained that the world should be grateful to Cesare for having allowed himself to be treated and cured by the secret prescriptions. In the normal course of things Cesare's lesions healed and presumably it was believed that he was cured. In the summer of 1498, having renounced an ecclesiastical career, Cesare set off for France, reaching Avignon in October. There the secondary symptoms of syphilis made themselves manifest, and his blotched face caused the reception committee of the city to take him to see the relics of St. Lazaire, in the hope this would effect a cure. The secondary stage of syphilis passed and his marriage to Charlotte d'Albrecht followed; it seems likely that she and the daughter she subsequently bore were Infected with syphilis. By the time of Cesare's return to Rome he appeared cured, since a report (by the Venetian ambassador to
of his arrival in the city made no mention of a scarred face. But by April 1504 Cesare was again ill, apparently with syphilis, since it was stated that his face was ravaged, testimony of the final stage of the disease. In the summer of 1503 he suffered a serious bout of malaria, which he survived, and probably he had had previous attacks. Today tertiary malaria is thought to check syphilis. In the event Cesare lived ten years from his initial infection. However, his death in a reckless single-handed attack on a party of armed men in the Kingdom of Navarre may suggest that eventually his brain had become affected by the disease.

The second case-study has a somewhat less dramatic ending. Joseph Grünpeck (born about 1473), whose treatise of 1496 has been noted above as one of the first in the field, was in Rome in 1498, where he witnessed the dreadful effects of the epidemic on infected German soldiers. He returned to Germany and became a secretary to Maximilian, following the latter's peripatetic court. After a banquet at Augsburg Grünpeck himself became infected through having sexual intercourse with a prostitute. Sometime shortly after 5 May 1503 he published his *Libellus de mentalagra, alias morbo gallico* [Reutlingen?, Michel Grief?], which on the basis of his own experiences gave a horrifying account of the illness and the various treatments that he had endured. He was treated with mercurial ointment, which initially brought relief and hid the scars. He believed himself cured, only to find that he was not, and instead had apparently entered the second stage of the disease. He was to endure further unspecified treatments for two years, before writing and publishing his *Libellus*, at which point he judged that he was cured. He appears to have survived to reach the age of fifty-nine, that is, for some thirty years after the infection.

The third case is that of Gianfrancesco Gonzaga, Marquis of Mantua, a military commander as well as ruler of a state. Early in 1509 he was diagnosed as having syphilis, and he agreed to renounce sexual relations with both his wife and his mistress to avoid contaminating them. In 1511 he claimed to be too ill to fight on behalf of the pope, as the latter desired, and the pope sent one of his personal physicians to examine his claim; this doctor reported that the marquis was indeed too ill to move. Early in 1513 the marquis had to delegate government of his state to his wife, as he was seriously ill. For the next three years there has survived an almost weekly account of his malady and its treatment. Thus, on 13 January 1513 he received an ointment poultice, and was under a strict dietary regimen. On 19 January it was reported that the marquis suffered horrific ulcers in his mouth. Two days later his secretary wrote to the wife of the marquis to say the marquis had shown him his body, and it was evident that a cure was taking place; he added on behalf of the marquis that the latter hoped soon to be able to renew sexual relations with his wife. By the spring of 1514 the marquis' eyesight had so deteriorated that he could barely see. On 11 July it was reported that a Genoese doctor was treating him with an unspecified potion and bathing his eyes. On 31 July another doctor who had been consulted suggested that the marquis took a dose of gold-dust in solution. By 3 September a doctor of Ferrara was treating the ulcers, applying some burning substance in a poultice. A rather pathetic letter records how the marquis endured all this in the hope of a cure at last. In October a friar, presumably a quack, had the treatment in hand, and by the following month the marquis was convinced that he was being cured; he ordered a procession for public thanks to God. In 1516 his illness was worse, and he had become very irritable and unpredictable: his mind appears to have been affected. Maestro
Girolamo, a doctor of some sort, was sent to prison and torture by the marquis, who claimed he had made him ill again by casting a magic spell. Even so, perhaps somewhat rashly, the following month Dr Giambattista della Rovere was offering the marquis his services. While the recorded details of the course of the illness end there, in March 1516, it is known that the marquis died in agony from syphilis on 14 April 1519, ten years after his initial infection.