Holy Dust: Prophylactic, Apotropaic and Therapeutic

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This paper presents an overview of the therapeutic, prophylactic and apotropaic uses of holy dust for the first time. The sources of holy dust used for these purposes are classified into four groups, to some extent mimicking the system used for Christian relics. Powdered rock and earth from the bodies, living quarters, tombs, graves, and shrines of saints and martyrs, together with that from holy sites such as martyrdom locations, churches, wayside crosses, plus specially consecrated sand were all employed medicinally at one time or another.

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Dieser Artikel gibt erstmals einen Überblick über die therapeutischen, prophylaktischen und apotropäischen Anwendungen von heiligem Staub. Die für diese Zwecke verwendeten Quellen für heiligen Staub werden in vier Gruppen eingeteilt und ähneln in gewisser Weise dem System, das für christliche Reliquien verwendet wird. Pulverförmiges Gestein und Erde aus Körpern, Wohnräumen, Gräbern, und Schreinen von Heiligen und Märtyrern sowie solche aus heiligen Stätten wie Märtyrerstätten, Kirchen, Wegkreuzen und speziell geweihter Sand wurden im Laufe der Zeit medizinisch verwendet.

Recommended Citation:
Duffin, Christopher J./ Weertz, Jan / Weertz, Els: Holy Dust: Prophylactic, Apotropaic and Therapeutic. In: MEMO 12 (2025): Holy Dust. Staub als Material religiöser Praktiken, pp. 12–36. Pdf-Format, doi: 1025536/20251202.

1. Introduction

'Holy dust' refers to fragments of rock and earth from a range of sacred sites, scrapings from tombs and ecclesiastical buildings, and even the bodily remains of holy people. The dust was collected not only as a pilgrimage souvenir and a tangible connection to events and places of sacramental impact, but also for its perceived therapeutic potential, especially during medieval times. The objective of the current paper is to present, for the first time, a wide-ranging historical overview of the prophylactic, apotropaic and therapeutic applications claimed for holy dust in a primarily Christian context.

Holy dust clearly has a significance which extends far beyond the symbolic, memorial and dedicatory. As this review shows, it represents not only a tangible, physical, portable link with Christian forerunners who enjoyed a particularly close relationship with God, but it testifies to the direct Divine, supernatural involvement of the Creator in the affairs of

men. As such it is a liminal material which occupies a position at the threshold of the corporeal and the spiritual, the earthly and the heavenly, the natural and the supernatural, the material and the ephemeral, the ordinary and the transcendent. Our prime focus is to present an overall assessment of some of the broadly medicinal applications of holy dust in history, rather than considering its other religious, devotional applications. A first step in achieving this goal involved the development of a source-based utilitarian classification system which would enable effective handling of the numerous case histories consulted in this process and informing discussion about the applications of holy dust. This review therefore proposes a reasoned, simple but novel hierarchical approach to the taxonomy of holy dust, based upon the concepts inherent in the Christian classification of relics, as a means of systematising the wide range of circumstances in which the dust is located. This hallowed material also occupies the shared thresholds of numerous interconnected disciplines. Our approach is to begin to marshall available evidence from a wide range of sources including hagiographical accounts, surviving elements of archaeological, religious and pharmaceutical material culture and secondary literature in order to produce an initial synthesis.

The main sources of holy dust are related to Christian saints who, according to Catholicism are holy persons who were close to God in death and who could therefore intercede with Him for the living; through the mediation of the saint, problems (such as illness) in the mortal world could be solved. In practice, the saint himself was soon seen by people as a source of heavenly power which could be communicated through physical transfer or spiritual association to grave soil, stone dust from a shrine or church dedicated to them.

At its heart, the polyvalent application of holy dust in therapeutic and protective situations is a focus of pilgrimage and the response of the local church and its community to the desire for spiritually potent, portable souvenirs harnessing healing potential imputed to earth by association with holy sites and persons. Holy dust might be collected opportunistically and used on an individual, personal basis or blessed and systematically distributed as part of an organised church system.

1. 1. Corpse medicine

The human body has been a source of medicinal materials in both the western and Chinese medical traditions for millennia. ‘Corpse medicine’, as it is sometimes called, includes the use of mummies and human tissues, particularly fat and bone, to treat a wide range of conditions. During the sixteenth to seventeenth centuries, it was believed that humans had fore-ordained life spans at the end of which the life force exited the body through the skull. In the event of a premature death, particularly by execution, the unspent portion of the vital principle became trapped in the body and accumulated by concentration in the skull bones – the parts of the head most resistant to decay. *Cranium humanum* was thus seen as a reservoir of human vital force with powerful therapeutic potential and administered in powdered form to the sick.[1] It is interesting that

1 Duffin 2022, p. 77.

the bodies of martyred saints were also accredited with healing powers, although in this instance there was an important additional component to consider – the power of a sanctified, consecrated life dedicated to the service of God through Jesus Christ, steeped in holiness, perhaps evidenced in ascetic, prayerful living, sometimes routinely associated with the miraculous. There seemed to be Biblical warrant for the idea that such a life qualitatively affected the tissues of the body. 2 Kings 13: 20–21 records how a corpse came back to life when it was flung into the grave of the prophet Elisha, on making contact with his bones. This led the medieval French Rabbi Schlomo Yitzchaki (also known as Rashi; 1040–1105) to the conclusion that "the righteous are more powerful after death than in life".[2] Furthermore, this incident shows that the concentrated, immanent, quickening power resident in Elisha's bones could be communicated on contact. This principle of holy transfer is clearly at work in the New Testament where, for example, the laying on of hands mediated God's authority in healing the sick (Matthew 9:18–30), and handkerchiefs and aprons touched by the apostle Paul communicated healing and deliverance (Acts 19:12). In the Old Testament communication of holiness through touch can be seen with respect to various elements of the Tabernacle and the offerings made there (e.g. Exodus 29:37, 30:29; Leviticus 6:11, 6:20).

2. Relics

The cult of relics began in earnest during the fourth century AD. Sought for assiduously, supposed remnants from Biblical times began to be amassed and revered at centres such as Rome and Constantinople. Surviving trappings of the crucifixion, significant objects from the lives of the saints and the mortal remains of martyrs of the faith were kept in specially constructed, highly opulent containers (reliquaries) adorned with gold and precious stones and venerated in dedicated shrines. The bodies were often noted to have escaped corruption and to emit sweet-smelling odours rather than the stench of decay, signs of the transformative power of their sacrificial, sanctified living, presaging the resurrected body and sweet smell of the atmosphere of heaven. Vitricius (c. 330–407), Bishop of Rouen, remarked that "The blood which the fire of the Holy Spirit still seals in their bodies and in these relics shows that they are extraordinary signs of eternity".[3] The Church had to walk something of a theological tightrope as it countered accusations of pantheism in its willingness to embrace the cult of relics, instructing that such objects should be venerated rather than worshipped.[4]

Relics are traditionally divided by the Church into three classes. First Class relics constitute the physical remains of the bodies of saints and martyrs. Second Class relics consist of items and materials that were used or came into direct contact with the saint during their lifetime. Third Class relics embrace any item that has come into direct contact with a First Class or Second Class relic. This outline can be adapted to

2 Bar 2011, p. 12.
3 Freeman 2011, p. 32.
4 Freeman 2011, p. 29–36.

give a utilitarian classification of sources of holy dust for the purposes of the present work. Thus

1. First Class sources of holy dust are the physical remains of saints, martyrs and other holy persons.
2. Second Class sources are those which have come into direct contact with the body of the saint, usually at death – the coffin, tomb or immediately adjacent sediment, for example; but also material from the living area of the holy person, such as the soil of Jerusalem or the rock of St Paul's Grotto on Malta.
3. Third Class sources are those which are closely associated with either the First or Second Class sources. In practice, proximity to Second Class sources is the norm and examples might include soil from the cemetery in which the saint was buried or scrapings from the walls of shrines. Shrines were often built at the site of martyrdom or burial of a particular saint, so are often included as Second Class sources.
4. Fourth Class sources are introduced here as those whose association with the holy person is looser, not an example of direct contact or immediate proximity, but memorial. Examples include dust from wayside shrines and crosses, churches dedicated to a particular saint or sand consecrated for a particular therapeutic purpose.

3. First Class Sources

Holy dust obtained directly from the bodies of saints, martyrs and holy people is known to have been used therapeutically although accounts are relatively scarce and the supply of material, of course, is subject to the law of diminishing returns. Part of the reason for this shortage of material is the lively trade in (mostly bone) material from saints' cadavers in response to the high, widespread demand for relics by a wide variety of Christian institutions to increase their reputations, to enhance their impact as potential pilgrimage centres and to diversify their focal points of veneration.[5] This fragmentation and redistribution of First Class relics by donation, exchange and sale dramatically reduced the volume of available source material for deployment as medicinal holy dust. Some records of First Class relics as sources of therapeutic holy dust have, however, survived.

As early as the fourth century AD, Ambrose (c. 339–397) shared holy dust from the bodies of Gervasius and Protasius, two (probably) second century Milanese martyrs, with a group of relic collectors, including Vitricius mentioned above.[6]

Gregory of Tours (c. 538–594), Bishop of Tours and a Gallo-Roman historian, is an important source of information concerning First Class sources of holy dust. Amongst his hagiographical works is *Glory of the Martyrs*. In it, he recounts an incident concerning a grave pit at a church in Cologne. The Theban Legion was a Roman legion from Egypt which is said to have consisted of 6,666 soldiers. As a group, they refused to sacrifice to Emperor Maximian (reigned 286–305) who then ordered that one tenth of the company should be slaughtered. The company still re-

5 Van Strydonck et al. 2006, pp. 172–177.
6 Freeman 2011, p. 27.

fused to sacrifice so after two more decimations the entire legion was killed; they are sometimes referred to as the Martyrs of Agaunum (now Saint-Maurice, Switzerland). Gregory records that 50 of the men "consummated their martyrdom" at Cologne (*in errore*) and that Eberigisilus, Bishop of Cologne, "was racked with severe pains in half his head". He sent his deacon to the church where he collected some dust from the grave and administered it to the Bishop – "As soon as the dust touched Eberigisilus' head, immediately all pain was gone".[7]

Gregory of Nazianzus (c. 329–390), the Archbishop of Constantinople, wrote a series of orations, some of which were theological, in 379/380. One of these concerns Cyprian (c. 210–258), Bishop of Carthage, who was beheaded in Curubis (now Korba, Tunisia) for not conforming to the Roman rites. Gregory notes, without further details, that the dust of Cyprian was good for the exorcising of demons, the elimination of sickness and for foreseeing the future.[8]

4. Second and Third Class Sources

Theodorus the Martyr was a Byzantine Roman military saint who was slaughtered around the year 303. His remains were believed to be stored in a church in Amasya, a town located in the Black Sea Region of modern-day Turkey. Gregory of Nyssa (c. 335–395) gave an oration concerning the saint when he visited the church in 383. Considering the body to be "a highly valued treasure, preserved for the moment of its rebirth", Gregory states that "if someone gives us to take away some of the dust lying on the surface of the resting place [coffin], that soil is received like a gift, and the earth is treasured like a valued possession".[9] In other cases (see below) it is clear that the gift of such treasured holy dust was valued for its supposed therapeutic properties.

4. 1. Tombs

Gregory of Tours is once again a basic resource for early accounts of scrapings from tombs being used medicinally. In *Glory of the Martyrs*, he mentions the adjacent tombs of Irenaeus (c. 130–202), Bishop of Lyon, Epipodius (died 178) and his companion Alexander, all housed under the altar of the Church of St John in Lyon. Gregory states that "[i]f ill people have faith and scrape some dust (*pulvis*) from the martyrs' tombs, immediately they are healed".[10] Furthermore, he noted that the tomb of a woman from Lyon who picked up Epipodius' sandal was a source of healing, especially for those suffering from chills, and that those that drink the dust from the tomb "depart with their health".[11]

Martin of Tours (316/336–397), sometimes referred to as Martin the Merciful, preceded Gregory of Tours as a Bishop of that city. He died at Candes-Saint-Martin in the Roman province of Gaul and his body was

7 Van Dam 2004, p. 59.
8 Vinson 2003, p. 154.
9 Rizos 2021, E01748.
10 Van Dam 2004, p. 48f.
11 Van Dam 2004, p. 47f.

taken by night down the Loire to Tours where it was buried in a small shrine west of the city. *The Miracles of Saint Martin*, presented in four books, was Gregory's earliest work. Two months after his appointment as Bishop of Tours, Gregory fell ill, suffering from dysentery and high fever. The failure of routine medications brought him close to death. The turning point came when he sent his doctor, Armentarius, to the tomb of St Martin to gather some dust for a therapeutic drink. After drinking the dust mixed with water, Gregory made a remarkably rapid, full recovery. Gregory was so impressed by the therapeutic power of the dust from St Martin's tomb that he travelled with a quantity in a small box or capsella. On one occasion, two of his servants with responsibility for the horses fell ill; they recovered after drinking a draught of holy dust taken from the box and suspended in water. He also recorded a series of other miraculous healings in which dust from the tomb played a crucial role: a woman who had been suffering from dysentery for five months, those suffering from fevers (including tertiary fever or malaria), tremors, the possessed, a man suffering from fever, vomiting, diarrhoea and a tumour in the groin, and Gregory's own toothache. He waxed lyrical in his summing up of the efficacy of the dust:

> O indescribable antidote! O ineffable balm! O praiseworthy remedy! O purgative, that I might term heavenly! This dust defeats the skill of doctors, surpasses sweet scents, and is more powerful than all strong ointments. Like scammony it purges the stomach, like hyssop, the lungs; and like pyrethrum it cleanses even the head. Not only does it strengthen weak limbs, but – something that is more important than all these things – it removes and lightens the very blemishes of conscience.[12]

In his verse hagiography of St Martin, the fifth century Paulinus of Périgueux noted that Perpetuus, a Bishop of Tours who died in 490, added dust from the marble slabs of Martin's tomb in order to increase the healing efficacy of holy oil; indeed, it was said to double the potency.[13]

Gregory also recorded healings associated with ingesting dust from the tomb of Julian of Brioude (died 304), a saint from the Auvergne who was martyred by decapitation. Gregory's brother, Peter, was cured of a fever after drinking a suspension of holy dust from Julian's tomb (he also requested the dust for an amulet to hang around his neck). Furthermore, one of Gregory's servants was healed with dust from the tomb following a bout of plague with high fever and an inability to keep food down.[14] In addition, Gregory records that dust from the tomb of 'Theomastus' (Theonistus, early 5th century), purportedly a bishop of Mainz who, on expulsion from the city moved to Poitiers where he was eventually buried, "offers such a remedy for toothaches and fevers that whoever drinks it marvels at the result. This blessing is sought so constantly that already the sarcophagus appears to have been perforated in one spot". [15] Further-

12 Van Dam 1993, pp. 162f., 233f., 253f., 283f., 300.
13 Petschenig 1888, p. 150.
14 Van Dam 1993, pp. 180, 190f.
15 Van Dam 2004, p. 39f.

more, he notes that the tomb of St Cassian of Autun (died c. 350) "had been scratched at by many ill people, so that at that time it seemed almost perforated. Sick people purify themselves with this dust, and immediately they feel the immensity of his power".[16] Other sources of therapeutic holy dust noted by Gregory include the tombs of Felix of Bourges (died c. 580 – the dust was effective against quartain, tertiary and daily fevers (quartain and tertiary fevers were different varieties of malaria), a young Parisian girl called Criscentia (effective against tertian fevers with associated tremors) and Hospitius (a French recluse, died 581).[17]

Other records from approximately the same period include the use of dust from the tomb of Secundus of Asti (died c. 119; martyred by beheading) and Hilary of Poitiers (c. 310–367). In the latter case it is recorded that

> "[t]wo lepers who were disfigured with sores came from Cahors. Since they had entrusted their hope for a cure to the intercession of the saint, they washed their heads and smeared their limbs with dust that had been wiped from his tomb. They faithfully applied this remedy to themselves for a long time until the ulcers and the discoloration caused by their illness were arrested and left the bodies that they had seized".[18]

Similarly, dust scraped from the tomb of St Eutropius (1st or 3rd century), evangelist to the Gauls at Saintes who was killed by the blow of an axe to the head, was considered especially effective in the cure of fevers, well into the 19th century.[19]

One of Jesus' Apostles, 'Doubting' Thomas or Didymus, is believed to have travelled well beyond the limits of the Roman Empire in his post-crucifixion journey of evangelism, reaching southern India in AD 52; according to Syrian Christian tradition he was martyred by means of a spear thrust at Mylapore (near Madras) in AD 72. The Venetian traveller, Marco Polo (1254–1324), visited the area in 1292 and gives an account of a well-established site of pilgrimage at St Thomas's Mount, routinely visited by both Saracen and Christian devotees. He notes that red earth was collected by pilgrims from the site of Thomas's martyrdom for the express purpose of administering it to the sick, especially those suffering from quartain and tertian fevers (malaria).[20] Slightly later, Giovanni de' Marignoll (fl. 1338–1353) noted that earth from St Thomas' tomb was used to secure miraculous healings during his visit of 1348–1349.[21] The Syriac scholar, orientalist and librarian of the Vatican Library, Giuseppe Simone Assemani (1687–1768), records that the application of this holy earth, often referred to as *Hanānā,* to the sick by Nestorian christians was accompanied by a special liturgy.[22]

Bede (c. 673–735), the English monk and church chronicler, records several cases of the therapeutic use of holy dust in his *Ecclesiastical History of the English People*, completed around 731. St Alban (dates dis-

16 Van Dam 2004, p. 54.
17 Van Dam 2004, pp. 76–78.
18 Van Dam 1993, p. 157.
19 Bentley 1985, p. 100.
20 Yule 1903, p. 354.
21 Yule 1903, p. 356.
22 Assemani 1728, p. CCLXXVIII.

puted, but late 3rd or early 4th century) sheltered a local priest who was being persecuted by the Romans and was sentenced to the same punishments that were due to the priest. In spite of the torture he endured, steadfast in his faith, Alban was sentenced to death. He was beheaded amidst a series of miraculous events and the conversion of some of his executioners; St Alban's Cathedral stands near the site of his execution. Bede records how Germanus of Auxerre (c. 378–448), a bishop from Gaul, visited England in 429 in order to ensure that the church would adhere to the Augustinian teaching of Rome. Having led native Britons to victory against invading Picts and Saxons, Germanus gave thanks at the grave of St Alban. The reddish soil was supposedly stained by the blood of the martyr; Germanus collected a sample of the dirt to take away with him.[23]

Bede also presents a digest of the life of St Cuthbert of Lindisfarne (c. 634–687), the popular Anglo-Saxon Northumbrian monk and hermit. According to Bede, some time after Cuthbert had died and was interred, a Lindisfarne boy was tormented by an evil spirit, causing him to lose his reason and provoking extreme self harm. Exorcism by the local priest proved ineffective, so the father followed advice and took the boy to the monastery on the island to pray for relief by the relics which were stored there. He was refused entry. On seeing and hearing the ravings of the mad boy, however, one of the priests went to the spot where the water used to wash St Cuthbert's corpse was disposed of. Mixing some of the dirt with water, he forced the slurry into the boy's mouth; the child stopped raving, fell into a deep sleep and was perfectly calm when he awoke the next morning. Bede states that the square pit with wooden walls which received the water was still being visited at the time of his writing (before 720). The small stones and dirt collected from the pit were credited with many other unspecified cures.[24]

At Lembeek (Belgium) past pilgrims dug a pit under the grave of local folk or popular (i.e. not canonised) St Veronus (died 863) to extract earth for the treatment of headaches, meningitis and fever; small bags of the soil were placed under the head at night in order to ease symptoms. Headache is also treated using earth removed from the Evermarus chapel at Rutten (Belgium).[25]

A more recent example is provided by the testimony of Geurtje Gijsbert Perk (1742–1813) of Hilversum (the Netherlands) who suffered from a wide variety of ailments including numerous cancerous growths. When the medicines she was prescribed failed to ease her conditions, she petitioned Father Gijselink to allow her to take some earth from the grave of François de Pâris (1690–1727), an ascetic French theologian who was buried at the cemetery of Saint-Médard in Paris. From 1731, a series of extraordinary cures were reported by pilgrims who visited his grave. Those touching the marble tomb or consuming earth from the grave site in either wine or water were reportedly cured at the same time as experiencing violent convulsive movements. This led to the pilgrims being referred to as the Convulsionnaires of Saint-Médard.[26] In 1732, for example, Demoiselle Fourcroy claimed almost instantaneous convulsive healing of a

23 Bede 1955, p. 67f. (Book I, cap. XVIII).
24 Bede 1845, p. 75 (Life of St Cuthbert in Prose, cap. XLI).
25 Weertz et al. 2014, p. 30.
26 Owen 1864, p. 212.

deformed left foot. Geurtje was permitted to take the earth, mixed with holy water, and was healed within two days.[27]

The medicinal use of earth from graves is also firmly embedded in German folklore; the importance of the Christian dimension is not entirely clear in the following examples, which also commonly have associated application rituals. *Friedhoferde* has been recommended for rubbing on warts, goitres and rotten teeth, placed in bath water to treat rashes and emaciation, worn on the body to heal fever, gout and scabs, and to protect against lice infestation and witchcraft. In broader contexts, it was scattered on fields to protect crops against damage by birds and caterpillars.[28] In the UK, grave earth was used to treat epilepsy, swellings on the neck and rabies.[29]

4. 2. Holy Ground

The Biblical idea of holy ground rendered sacred because of the presence of God stems from Moses' experience on Mount Sinai. Here, according to Exodus 3:5, God spoke to him from the burning bush, commissioning him to go to Pharaoh and demand that he let the people go from bondage to Egypt. It is but a small step to see this principle applied to places which involved sacramental encounters with God – churches, cemeteries, sites of martyrdom, pilgrimage etc. Indeed, an entire geographical region has been called the Holy Land, within which Jerusalem is conceived as the Holy City by the Abrahamic religions – Judaism, Christianity and Islam. Perhaps it is not surprising that soil from Jerusalem has been revered, not only as a pilgrimage souvenir permitting a material connection with the city, but as a tangible, reverential link to a spiritual homeland. One fourth century account relates that the floor of the Church of the Holy Sepulchre in Jerusalem had regularly to be replenished because pilgrims habitually took sand from the floor.[30] The blood-soaked soil of Golgotha, the ground at the foot of the cross, was afforded special reverence. Large quantities of this earth were transported to Rome and installed in the Jerusalem Chapel of the Church of Santa Croce in Gerusalemme, Rome. Now embedded in the floor of the Chapel, it is covered by a glass top.[31]

For some, Jerusalem soil was used to scatter over graves. Pilgrims commonly took home soil from Akeldama, a site near Jerusalem, purchased by the priests with the thirty pieces of silver given to Judas for betraying Christ. The earth was often dumped in a cemetery in the belief that a body buried in this earth would decompose both much more quickly and with little accompanying odour. When Archbishop Ubdaldo of Pisa (died 1207) visited the Holy Land in 1188, he supposedly brought back fifty to sixty ships full of the earth, enough to cover an entire cemetery in Pisa, the Campo Santo located adjacent to the Cathedral.[32] Manuscript evidence, some dating from 1448, indicates that burial in this geographically translated soil was restricted to poor pilgrims and foreigners; the

27 Schriemer 2018, p. 144.
28 Bächtold-Stäubli/Hoffmann-Krayer 1987, col. 95–98.
29 Black 1883, p. 95f.
30 Raaijmakers 2018, p. 40.
31 Nagel 2010, p. 220.
32 Raedts 2018, p. 49.

bodies of local Romans were recorded as being expelled by this discriminating earth.[33] Campo Santo also acted as a distribution centre of earth to other cemeteries in Italy, Austria, Germany, Poland and Spain.[34]

Small quantities of Jerusalem earth are still sold to the faithful worldwide in a variety of specialised containers including olive wood boxes and crucifixes. Certain rosaries contain a compartment for storing a small quantity of earth. The Berber theologian and Bishop of Hippo Regius, Augustine (354–430), attributed considerable power to earth from Jerusalem. He records that Hesperius, a former Tribune, hung a bag of Jerusalem soil in his bedroom to protect him from the evil spirits that were tormenting the personnel and livestock on his parcel of land. Once the house had been fully exorcised, Hesperius buried the earth to act as a locus for prayer for the community; a paralytic boy was brought to the spot and received full healing there.[35] Adomnán of Iona (c. 624–704) embellished some observations of Sulpicius Severus (c. 363–425), the Christian writer from Aquitaine, indicating that, at the site of the Ascension on the Mount of Olives, the footprints of God could still be seen and that "daily crowds plunder the earth trodden by the Lord" but without loss of volume or other signs of damage. A side door in the Chapel of Ascension provided access to the sacred dust.[36]

When Joseph, Mary and the baby Jesus fled the Massacre of the Innocents they sought refuge, according to a Christian regional myth, at a grotto in Bethlehem. The earliest written source for this locality and its closely associated cult-phenomenon is the Dominican friar, Philip of Savona (Filippo Busserio; born 1260) who travelled the area as a papal diplomat during the 1280s.[37] According to this author, 'it is said that our Lady sometimes pressed her breasts filled with milk to the ground whence that earth is so white that it looks like milk.'[38] In other versions of the story a drop of milk fell from Mary's breast as she was feeding her child.[39] As it hit the ground the milk miraculously turned the rock and earth, formerly pink in colour, white. The American author, Mark Twain (1835–1910), recorded an 1867 visit to the site, reiterating this legend in his famous travel book, first published in 1869, *The Innocents Abroad;* he collected numerous pieces of the rock 'because it is well known in all the East that a barren woman hath need only to touch her lips to one of these and her failing will depart from her'.[40]

The site is now commemorated as the Milk Grotto, marked by a Catholic chapel which replaces an earlier Byzantine structure on the same spot. Dust and clay from the grotto were soon credited with healing properties. A Russian pilgrim named Grethenios records visiting the grotto around 1400 at which time earth was collected for 'remedy and benediction'.[41] The earth, sometimes referred to as Terra Hierosolymitanae, was later especially associated with childbirth – the improvement of fertility, easing or promoting lactation and enhancing the quality of mother's milk

33 Bynum 2020, p. 242; Donkin 2017.
34 Donkin 2017, p. X.
35 Dods 1948, p. 490f.
36 Meehan 1958, p. 67.
37 Neumann 1872, p. 57.
38 Neumann 1872, p. 57.
39 Bugslag 2009, p. 30.
40 Twain 1966, p. 437.
41 Hasluk 1909/1910, p. 229.

in particular.[42] The Franciscans who care for the site worked the dust into circular tablets from at least the early 18th century (**Figs. 1, 2**)[43], usually embossed with images of the Holy Family, for pilgrims to the site (**Fig. 1B, 2B**); the rock powder is still offered for sale in small sachets today.

Oswald (c. 604–601/2) reigned as a Christian King of Northumbria from 634 until his death against the pagan Mercians in the Battle of Maserfield. The spot where he died was claimed to be holy and the site of many healing miracles experienced by both mankind and animals. Bede records how dust was routinely collected from the place where Oswald fell, mixed with water and administered to the sick. Indeed, such was the popularity of the custom that there was soon a hollow as deep as the height of a man. Bede indicates that many miracles were wrought by means of the holy dust and records two specific and interconnected examples testifying to the holiness of the spot. An ailing horse, in great pain and foaming at the mouth, collapsed to the ground at the site of the King's demise and was immediately revived. Marking the spot with a stick so that he could find it again, the owner made his way to a local inn, where the landlord's daughter was suffering from a palsy. They took her by cart to the place where the horse had been cured and, after a good sleep, she fully recovered.[44] Bede also indicates that a Briton, on seeing that the grass at the spot was especially green, took some of the earth away in a linen bag, intending to use it medicinally. He hung the bag from a post at that night's lodgings.[45] The house caught fire and burned to the ground; the only timber untouched by the fire was the post to which the linen bag was attached. Osthrida (died 697), queen of the Mercians, translated the bones of Oswald to a nearby church. She noted to Ethelhilda, a visiting abbess, that the "dust of the pavement, on which the water that had washed the bones had been spilt, had al-

Fig. 1 A) Terra Sigillata Hierosolymitanae from Valentini (1714, tab. 1). – B) Terra Sigillata Hierosolymitanae from Hasluck (1909/1910, fig. 3).

Fig. 2 A) Terra sigillata, one still with its paper wrapping, collected by Christian worshippers on a pilgrimage to Bethlehem in the early twentieth century. The wrapping is marked with a Latin inscription which translates as "Believed to be from the sacred crypt of the suckling blessed virgin Mary". Copyright: The Board of Trustees of the Science Museum [license: CC BY-NC-SA 4.0]. – B) Two tablets of white chalky earth from the Milk Grotto, 1920–1930. Copyright: Wellcome Collection [license: CC BY 4.0].

42 Raedts 2018, p. 51; Neumann 1872, p. 57.
43 Valentini 1714, tab. 1.
44 Bede 1955, p. 153 (Book III, cap. IX).
45 Bede 1955, p. 154 (Book III, cap. X).

ready healed many sick people".[46] Ethelhilda requested a sample of the dust which she took back to her monastery in a casket. Later, a visitor to the monastery exhibited signs of demonic possession (loud crying out, gnashing teeth, foaming at the mouth and strangely distorted limbs), but exorcism proved fruitless. Ethelhilda administered a little of the dust she had been given and the man ceased his torment, never to suffer a recurrence of the condition.[47]

Bede refers to the use of holy earth from the site where Haedde, Bishop of Winchester, died in 705. Bede indicates that Aldhelm (c. 639–709), Bishop of Malmesbury, records that local people mixed the earth with water and sprinkled it over sick people and animals alike, or gave it to them to drink, resulting in many healing miracles. As was the case with Oswald's place of death, enthusiastic collecting of the hallowed therapeutic earth by the faithful resulted in a pit of considerable size.[48]

4. 3. Eulogiae

Byzantine pilgrims commonly sought eulogiae or 'blessings' from holy sites to be taken home with them. In terms of surviving material culture, these items were (usually small) sanctified objects such as loaves of bread moulded with images and inscriptions, and vials of holy oil. The term also embraces specific examples of *Terra Sigillata* – 'sealed earths'. Most *Terra Sigillata* are troches of smectitic clays collected and fashioned since classical times for their supposed medicinal properties and authenticated by an embossed seal. *Eulogiae* are small, round earthen tokens, often stamped with an iconic saintly image (**Fig. 2A**). Gregory of Tours, for example, exclaims that the ground adjacent to Jesus' tomb "is covered with a natural radiant brightness; the earth was fashioned into tokens and distributed all over the world because of their healing properties".[49] Simeon Stylites the Younger (521–596/7) was an ascetic hermit who spent 68 years atop a pillar erected on the 'Admirable Mountain' at Antioch (now *Saman Dağı*, Turkey); he was credited with exercising the gift of healing. Reddish earth from the base of his pillar was blessed and worked into medicinal tokens; similar *eulogiae* were produced in silver, lead, ceramic and wax or resin. Surviving specimens, distributed by the local monastery, often depict the bearded Simeon in monastic garb standing on top of a balustraded column up which a monk climbs, holding a censer, and around the foot of which is a kneeling monk at prayer. The most commonly recorded means of application was to smear the dust, dry or occasionally mixed with water or saliva, over the body surface. This technique secured healing for a three-year old boy suffering from extreme constipation, a cripple, and a man entirely lacking in body hair. Deformities, broken bones and fevers were all treated successfully, and the dust was even used to bring a donkey back to life, to restore the sweetness of a vat of sour wine and to calm a storm at sea. Such tokens were particularly popular during the sixth and seventh centuries and saw something of a resurgence during the mid-Byzantine period (mid-ninth to

46 Bede 1955, p. 156 (Book III, cap.XI).
47 Bede 1955, p. 157 (Book III, cap. XI).
48 Bede 1955, p. 299 (Book V, cap. XVIII).
49 Van Dam 2004, p. 27.

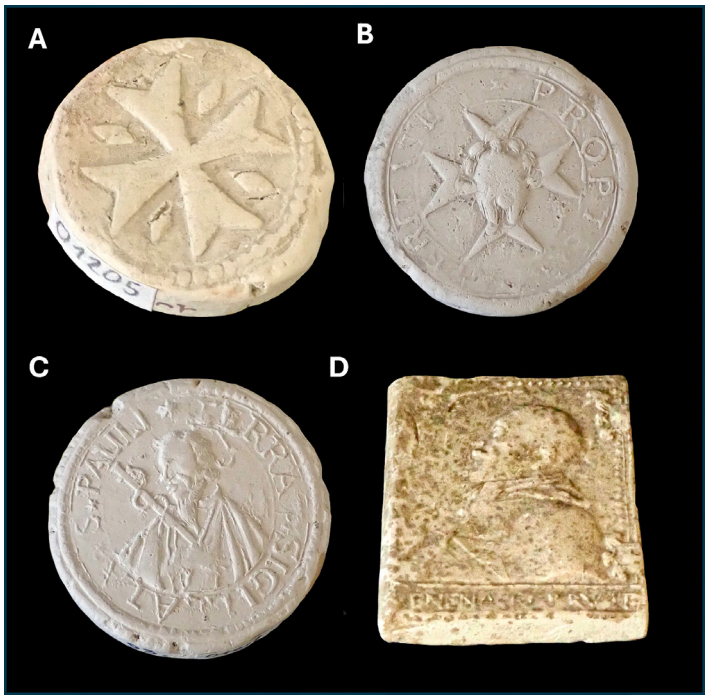


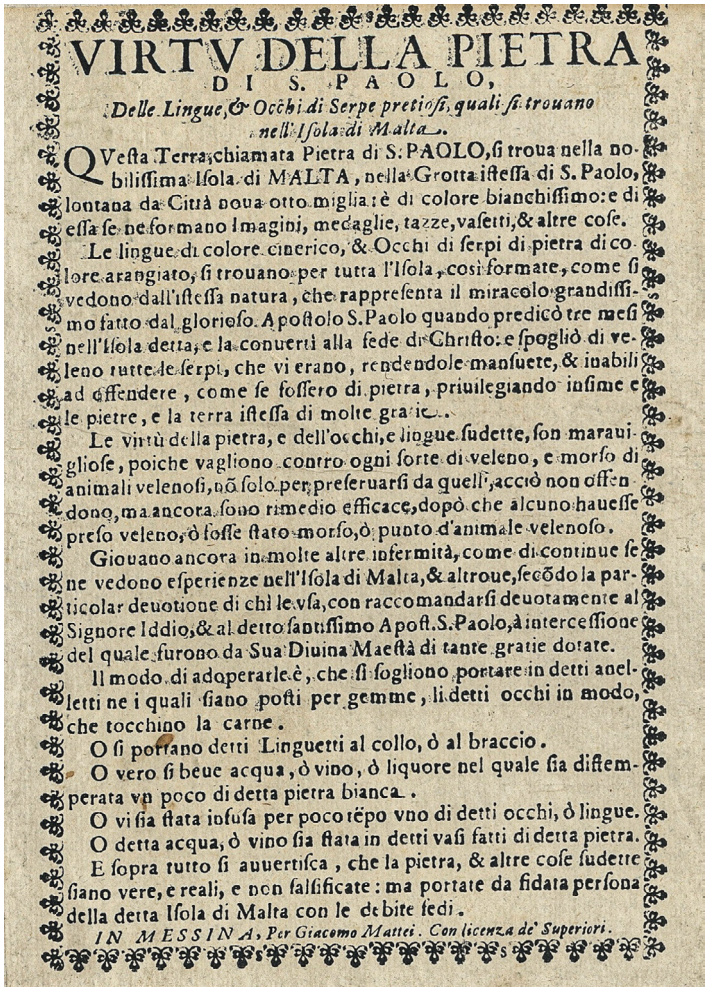
Fig. 3 Four examples of cakes of *Terra Melitensis* (Maltese Earth) from St Paul's Grotto, Rabat, Malta, showing authenticating embossed sigils. A) Eight-pointed or Maltese Cross, symbol of the Order of the Knights of Malta. – B) Eight-pointed cross of the Order with the braided hair of John the Baptist in the centre. – C) Side portrait of St Paul holding a staff with an entwined snake. – D) Portrait of Grand Master Hugues de Verdala (dated 1589 on the reverse). All the specimens are in the *Pharmaziemuseum der Universität Basel* [author's photographs].

early thirteenth century).[50] *Eulogiae* from many other holy sites, especially Jerusalem, were decorated with scenes from the lives of Jesus and relevant saints and offered protection against all sorts of ills. Also, *eulogiae* of James, another ascetic, were commended to be used as medicinal prophylactics.[51]

4. 4. Terra Melitensis

The Apostle Paul (c. 5–67 AD) was shipwrecked on Malta during a heavy storm in 60 AD, whilst on his way to trial at Rome. Acts 28:1–6 records his encounter with an adder in the woodpile: Paul was bitten by a viper hidden in the wood he was adding to the fire. The locals expected him to die, but when he suffered no ill effects they reconsidered and wondered if he might be a god. Paul stayed on the island for three months, introducing the inhabitants to Christianity. Maltese tradition has it that he stayed in a cave, now beneath a church, at Rabat. His holy sojourn in the grotto was believed to imbue the surrounding rock with special powers, including the ability to regenerate itself.[52]

The walls of the cave (and probably other, now obscure sites on the island) were worked for medicinal earth, known as *Terra Melitensis*. This could be exported in either crude or powdered form which was then processed to form small cakes or *Trociski* whose provenance was authenticated by an embossed stamp (**Fig. 3**), as with other types of sealed earth (*Terra Sigillata*) from different parts of the Mediterranean



VIRTV DELLA PIETRA
DI S. PAOLO,
Delle Lingue, & Occhi di Serpe pretiosi, quali si trouano nell'Isola di Malta.

QVesta Terra, chiamata Pietra di S. PAOLO, si troua nella nobilissima Isola di MALTA, nella Grotta istessa di S. Paolo, lontana da Città noua otto miglia: è di colore bianchissimo: e di essa se ne formano Imagini, medaglie, tazze, vasetti, & altre cose.

Le lingue di colore cinerico, & Occhi di serpi di pietra di colore arangiato, si trouano per tutta l'Isola, così formate, come si vedono dall'istessa natura, che rappresenta il miracolo grandissimo fatto dal glorioso Apostolo S. Paolo quando predicò tre mesi nell'Isola detta, e la conuertì alla fede di Christo: e spogliò di veleno tutte le serpi, che vi erano, rendendole mansuete, & inabili ad offendere, come se fossero di pietra, priuilegiando insime e le pietre, e la terra istessa di molte gratie.

Le virtù della pietra, e dell'occhi, e lingue sudette, son marauigliose, poiche vagliono contro ogni sorte di veleno, e morso di animali velenosi, nõ solo per preseruarsi da quelli, acciò non offendono, ma ancora sono rimedio efficace, dopò che alcuno hauesse preso veleno, ò fosse stato morso, ò punto d'animale velenoso.

Giouano ancora in molte altre infermità, come di continue se ne vedono esperienze nell'Isola di Malta, & altroue, secõdo la particolar deuotione di chi le vsa, con raccomandarsi deuotamente al Signore Iddio, & al detto santissimo Apost. S. Paolo, à intercessione del quale furono da Sua Diuina Maestà di tante gratie dotate.

Il modo di adoperarle è, che si sogliono portare in detti anelletti ne i quali siano posti per gemme, li detti occhi in modo, che tocchino la carne.

O si portano detti Linguetti al collo, ò al braccio.

O vero si beue acqua, ò vino, ò liquore nel quale sia distemperata vn poco di detta pietra bianca.

O vi sia stata infusa per poco tẽpo vno di detti occhi, ò lingue.

O detta acqua, ò vino sia stata in detti vasi fatti di detta pietra.

E sopra tutto si auuertisca, che la pietra, & altre cose sudette siano vere, e reali, e non falsificate: ma portate da fidata persona della detta Isola di Malta con le debite fedi.

IN MESSINA, Per Giacomo Mattei. Con licenza de' Superiori.

Fig. 4 Undated handbill in Italian promoting *Terra Melitensis* (St Paul's Earth), fossil sharks' teeth (*Glossopetrae*) and fossil fish teeth (*Occhi di Serpi* or 'Snake's eyes'). Collection BNU de Strasbourg, R.5 Fol. 4. Used with permission. We are very grateful to Thomas Bonnin (*Bibliothèque nationale et universitaire de Strasbourg*) for this image.

50 Vikan 1984, pp. 68–73.
51 Vikan 1984, p. 68.
52 Duffin 2019, p. 7.

area. Additional verification, especially during the seventeenth century, was provided by handbills and certificates of authentication, usually entitled *Virtu della Pietra di S. Paolo*, produced in a variety of languages (Latin, Italian, French and German) (**Fig. 4**).[53]

The earth was believed to be especially efficacious against poison, whether that be from snakebite or scorpion stings, or in cases of diseases where poison was involved. Eating bread and drinking wine from plates and goblets of *Terra Melitensis* was believed to ensure protection against such poisons for a whole year. The medicinal earth was also considered to be effective against headache, fever, colic, bites from rabid dogs, intestinal worms in children, as an antipyretic in cases of measles and smallpox, and topically in plasters to treat open wounds and ulcers. It was also added to an enormous range of compound medicines. Medallions of the material were also hung around the necks of infants to afford them amuletic protection against epilepsy.[54]

4. 5. Schabmadonnas

Many sites of Marian pilgrimage have produced terracotta or clay representations of the miraculous images (*Gnadenbildchen*) or statues of the madonna which are under their care. Those of the black madonnas at Mariazell, Maria Einsiedeln and Altötting are good examples. In addition to being pilgrimage souvenirs, often dating to the 17th to 19th centuries, the Schabmadonnas also had a medicinal application: dust was scraped from the statuette and ingested in food or drink. Probably the most famous Schabmadonnas were produced at Einsiedeln (a Benedictine monastery in Switzerland) **(Fig. 5)**.

Fig. 5 Schabmadonna of the Miraculous Image Mary, Einsiedeln (Switzerland). A) 19th century example [license: CC BY-SA 4.0; no changes made]. – B) Schabmadonna of Einsiedeln, c. 1800, Augustinermuseum 01615, Photo: Axel Killian [license: CC BY 4.0].

The clay from which they were fashioned was reputed to have been mixed with dust from the Chapel of Grace in which the original madonna is housed, together with fragments of various relics. The madonnas were often blessed in order to enhance their efficacy. Since trading in sacramental objects was forbidden by the church, these clay figurines, popularly known as *Leycheiben*, *Lehmcheibli* or *Schwabengötzli* were given freely to visiting pilgrims.[55] The *Einsiedler Chronik* of 1739 reported 15 examples of healing miracles attributed to the Einsiedeln Schabmadonnas.[56] Examples of Schabmadonnas have been found in archaeological contexts at excavations along the pilgrimage routes to Einsiedeln. Those examples manufactured at the monastery were authenticated by the figure of the coat of arms on the back of the Schabmadonna, allowing them to be distinguished from unofficial and unconsecrated specimens lacking dust from the Chapel of Grace and produced

53 Zammit-Maempel 2010, p. 64f.; Savona-Ventura 2010, unpaginated.
54 Duffin 2019, p. 8.
55 Imbach 2008, p. 186; Rothkegel 2006, p. 155.
56 Tobler 1991, p. 205.

in the local village.[57] Two ravens are depicted on the coat of arms. According to legend, Meinrad von Einsiedeln (c. 797–861), a family member of the Counts of Hohenzollern who built a hermitage on the site where the Chapel of Grace now stands at Einsiedeln, was killed by two vagrants during their quest to rob the shrine of valuable gifts left by pilgrims. Two ravens supposedly followed the murderers and led them to court where they were sentenced to death.[58] Manufacture of official Schabmadonnas ceased after the monastery was occupied and plundered by French Napoleonic troops in 1798. The Schabmadonnas from Einsiedeln range from 1 cm to around 25 cm high. The smallest examples were placed either in filigree capsules or Breverls for suspension on a rosary, around the neck or on the cradles of young children. The Breverl was a very popular talismanic leaflet bearing images of saints, prayers, Bible verses, miraculous images of pilgrimage sites etc. Usually folded four times, the paper was often stored in a specially made embroidered brocade cushion. Believed to offer spiritual prophylactic, apotropaic protection against evil, disease (especially plague) and even natural disasters, the papers commonly enclosed small, spiritually significant objects. Miniature Schabmadonnas might be accompanied by various crosses, specialist pilgrimage emblems (such as Benedictuspfennige, Sebastienspfeile etc.) and holy dust. They acted as a sort of emergency spiritual first aid kit.

5. Fourth Class sources

5. 1. Church Walls

Scratch marks of various shapes and sizes have been described and recorded from the walls of numerous churches in North-West Europe, especially the Netherlands, Germany and Belgium, with further examples in Britain, France, Austria, Switzerland, Luxembourg, Denmark, Romania, the Czech Republic and other countries. The scratch marks can be divided into three groups: 1) long, narrow grooves; 2) short, deeper, boat-like grooves; 3) cup-shaped, spherical hollows (**Fig. 6**).

It has been suggested that these features acted as ecclesiastical sources of therapeutic stone powder scraped from the building stones.[59] According to Eberstadt, Gregory of Tours wrote that stone powder was being scratched from the walls of St Martin's by the sixth century and remarked that it was

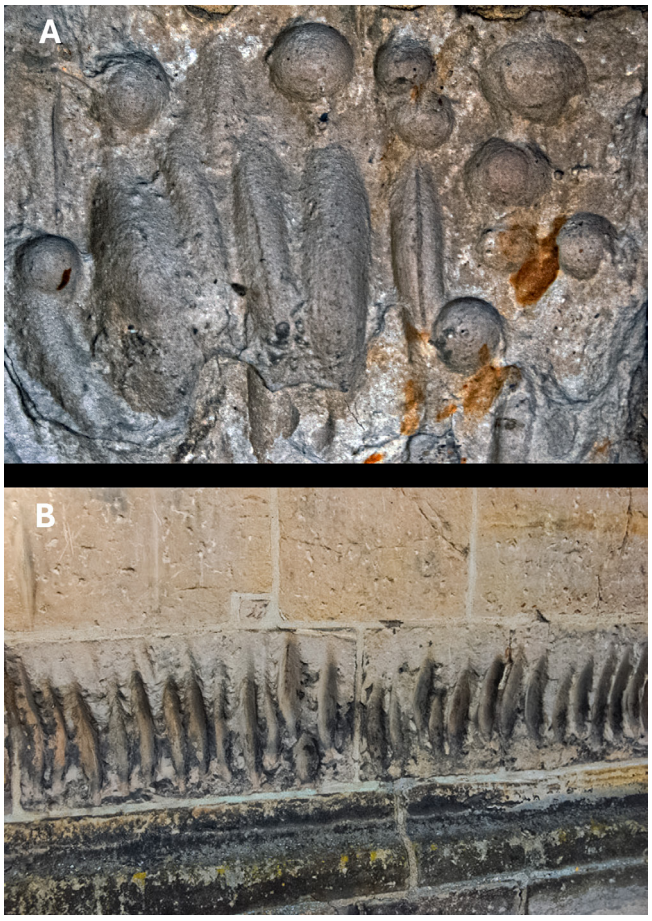


Fig. 6 A) Short and cup-like scratch marks from the monastery courtyard (*Klosterhof*) of the Liebfrauenkirche in Halberstadt, Germany. – B) elongated scratch marks in the Bentheimer Sandstone walls of the Plechelmuskerk (Oldenzaal, the Netherlands), parts of which date to the 12th century [author's photographs].

57 Boschetti-Maradi 2009, p. 15f.
58 Lienert 1915.
59 Weertz et al. 2014, p. 29; Weertz et al. 2020, p. 59.

more powerful than all the fortune tellers with their senseless tricks.[60] Stone dust from church walls was employed in the treatment of kidney stones (urolithiasis) and renal colic, toothache, teething problems, headaches and diseases of the neck, as well as being mixed with cattle feed. Warts supposedly disappeared from the hands of young girls on nights with a full moon when such holy dust was applied to them.[61]

Scratch marks on church walls in Hessen and Grafschaft Bentheim (Lower Saxony) in Germany have been referred to as *Pestrillen* and *Pestschaben* ('plague grooves') as the stone powder obtained from them, when mixed with water, was used to treat plague.[62]

5. 2. Wayside crosses

Wayside (stone) crosses were commonly exploited for therapeutic stone powder. Examples include a stone cross at Kemnade (Germany) which, up to at least 1884, yielded powder for adding to children's drinks as a treatment for colic. A cross at Hohenbüchen-Coppengrave (Lower Saxony) was scraped for holy dust which was used to treat epilepsy, whilst powder from another at Wasungen (Thuringia) was used to treat thyroid problems; one old shepherd also administered it to his livestock to 'drive away' disease. Similarly, an old shepherd was recorded scraping stone from a cross near Jühnde (Lower Saxony), mixing it with badger fat and using it to treat all manner of human and animal diseases. A further example of veterinary application concerns powder scratched from a stone at Gross Ellershausen, near Göttingen in the early years of the twentieth century; the powder was blown into the eyes of a cow as a treatment for an unspecified eye disease. Three crosses at Arholzen (Lower Saxony) provided powder added to the food of children and animals alike in order to promote growth and cure illnesses.[63]

A resident of Bodenwerder (Lower Saxony) remembered that, in his youth (before 1914), people shaved sand from a Scheibenkreuzstein (disc-shaped stone cross) to use it to prepare a healing ointment; the stone still preserves evidence of heavy grinding marks on its surface.[64] Such crosses were commonly erected at sites of premature or violent death of those who had not received the catholic sacraments of death beforehand.

5. 3. Consecrated sands

This group of sediments refers to sands and earths that have been provided especially for collection and use by local people. In most cases the original use of these deposits relates back to a Second- or Third-Class sediment source but in a few instances, they are either novel or related in some way to the practices of indigenous peoples. The provision of specially consecrated sand is seen as a pragmatic and utilitarian response to local demand in the wake of diminishing availability of the original source.

60 Eberstadt 1916, p. 290.
61 Eitelmann 1998, pp. 189–194; Bormuth 1995, pp. 9–12; Weertz et al. 2014, p. 30f.
62 Weertz et al. 2014, p. 31.
63 Jünemann 1977, pp. 25–31.
64 Jünemann 1977, p. 30.

Fig. 7 A) The tomb of Saint Gerlachus at Houthem-Sint Gerlach (the Netherlands). Note the sand provided with a shovel and brush beneath the altar. – B) Bags ready-filled with blessed 'sand' in Sint Gerlachuskerk, Banholt (the Netherlands). – C) Store of consecrated earth at Hakendover (Belgium). – D) The altar at Saint Mortkapel, Haillot (Belgium). Note the cavity beneath the altar where the consecrated earth is kept, plus the presence of a large stone, perhaps a menhir or standing stone [author's photographs].

For example, Sint Gerlach, a 12th century knight, hermit and friend of Hildegard von Bingen, died around 1170; his gravesite was the focus of a number of small miracles and became a source of holy earth for locals and pilgrims. Recent modification of the custom sees the church authorities now providing consecrated limestone powder in a pit beneath the saint's tomb. Plastic collecting bags and a small shovel are also furnished so that the faithful can remove samples for the treatment of sick animals, to mix with corn to deter rats and mice, to sprinkle in stables for the well-being of the cattle, or to add to soil to improve crop growth (**Fig. 7A**). At Banholt (Netherlands) 150 pre-packed units of consecrated sand are made available at Sint-Gerlachuskerk on 5 January, the Saint's Feast Day, so it can be used prophylactically against disease in livestock (**Fig. 7B**); it is thrown into the stables in the belief that it will keep the cattle healthy.[65]

Similarly, specially consecrated earth is provided from the cemetery at Hakendover (near Tienen, Belgium) (**Fig. 7C**). Blessed local building sand is supplied in a bucket next to a statue of Saint Anthony the Great (c. 251–356) (**Fig. 8**) for parishioners at Sint Catharinakerk in Montfort (Dutch province of Limburg) so they can sprinkle it in their stables and on their fields, and gypsum substitutes for scrapings from the altar at

65 Weertz et al. 2020, p. 61.

Birkheim über Kastelaun (Germany) was provided to farmers to encourage rapid growth in their livestock.[66]

Sint Evermaruschapel at Rutten (Belgium) stores consecrated earth collected from the local meadows in a small pit in the floor of the nave, just in front of the altar. Believers can collect the earth for use in the treatment of various human and animal diseases, especially polyps, as well as for scattering on the fields in order to enhance fertility. 'Holy' sand is also stored under the altar of Saint Mortchapel at Haillot (Belgium) from whence it can be removed by visitors for prophylactic addition to animal feed (**Fig. 6D**). Cows that have fed on the earth are said to have increased milk yield.[67]

Fig. 8 Special bucket containing consecrated sand and standing next to a statue of St Anthony the Great at Sint Catharinakerk in Montfort (the Netherlands) [author's photograph].

A final European example centres around reverence for St Gertrude of Nivelles (c. 621–659) who, according to legend, helped rid local fields of rodents which were decimating the crops and stored grain. White *Gertrudiszand* was sprinkled in the home to discourage vermin at Heerle (the Netherlands), and on 17 March (the saint's feast day) consecrated *muizenzand* ('mice sand') was provided at Onze Lieve Vrouw Tenhemelopneming for the same purpose. Earth from the churchyard of Sint Gertrudiskerk at Vorst (Belgium) was collected to treat wounds on the nose and lips, eczema, skin conditions, plague, mental illness and for added strength to resist the devil. In former times, similar provision was made at Woensdrecht (the Netherlands).[68]

Specially consecrated holy earth is also known from several sites in the Americas. At the Mexican Sanctuary of Our Lady of San Juan de los Lagos in Jalisco, the faithful are given edible rectangular therapeutic clay tablets stamped with an image of the (1543) statue of the Virgin of the Immaculate Conception housed in the shrine.[69]

In eastern Guatemala, local kaolinitic deposits are mined as the source of materials for small medicinal clay tablets. Often referred to as *Tierra Santa*, *Tierra bendita* or *Tierra del Santo* (Holy, Blessed or Saintly Earth) the tablets are blessed in the name of the crucifixion statue of the black Christ at Esquípulas sculpted by the Portuguese artist *Quirio Cataño* in 1595. Sometimes also referred to as *pan de dios* (bread of God), the tablets are formed in wooden moulds, stamped with a variety of motifs including images of the Virgin Mary, various saints and the Crucifix of Esquípulas and sold to pilgrims at various church festivals. Therapeutic applications of the clay include the treatment of menstrual problems, morning sickness during pregnancy and intestinal parasites in

66 Weertz et al. 2014, p. 30; Weertz et al. 2020, p. 60.
67 Weertz et al. 2020, p. 61f.
68 Weertz et al. 2014, p. 30; Weertz et al. 2020, p. 61.
69 Guinea 2006, p. 333

children when taken internally, and the cure of wounds and lesions when applied topically.[70]

A further example, this time from New Mexico (USA), is furnished by the holy earth associated with the Santuario de Chimayó, an extremely popular Hispano-Catholic pilgrimage centre dedicated to Our Lord of Esquípulas, founded by Bernardo Abeyta (1771–1856), an early Hispano Penitente, in 1816. It has been suggested that the healing earth from this area has been appropriated from the local practices of indigenous inhabitants (the Tewa people).[71] Several origin myths exist concerning the discovery of the crucifix of Esquípulas, a centrepiece of devotion at the Santuario, the most popular of which describes how Abeyta saw a light glowing in the soil. The hole from which he excavated the cross is referred to as *el pocito* ('the little well') and is now located in one of the side rooms of the Santuario.[72] Pilgrims visiting the Santuario take small amounts of holy earth from *el pocito*. When stocks are exhausted, the earth is replenished using sources from local hillsides. The material is either rubbed onto the skin or taken internally and has supposedly been effective in the treatment of pains, rheumatism, melancholy, sore throat, paralysis and is reputed to be particularly efficacious during childbirth.[73]

Fig. 9 Sonntagberger *Schreckstein* or *Fraisenstein*. Kr A 1389 Kriss collection, Bayerisches Nationalmuseum, München. Used with permission. We are very grateful to Dr Matthias Weniger (*Bayerisches Nationalmuseum*) for providing this image.

5. 4. Miscellaneous sources

In Ireland, earth from the graves of certain clerics have been credited with healing powers. Father James McGirr (1745–1815) was a Catholic parish priest in the rural village of Boho (County Fermanagh, Northern Ireland) from 1770 onwards. In addition to his clerical duties, McGirr actively practiced the folk healing traditions of the area, which included the therapeutic us of local soils. When the villagers expressed concern that this means of treatment might be lost at his death, the priest reassured them that the soil that covered his body would be just as effective. This led to the tradition of small amounts of soil or 'Blessed Clay' being removed from the grave, wrapped in a cloth and taken home, the pilgrims being careful not to speak to anyone whilst on their journey. The package of soil was then placed under the pillow for three or four days before being returned to the grave site. This general therapeutic approach became more specific in some instances where the packets of soil were held in the mouth to treat toothache, and possibly also in cases of skin diseases and tuberculosis.[74]

The staff of Saint Ermelindis (6th century Belgian hermitess) was supposedly planted next to a church at Meldert (Belgium) and grew into a thorn bush. Earth was removed from the base of the bush by local farmers and sprinkled on the fields to ensure increased fertility.[75]

70 Redman 1908, p. 156; Müller-Schwarze 2004, p. 51.
71 Hendrickson 2017.
72 Johnson 2023, p. 314.
73 Redman 1980, p. 157.
74 Quinn 2023; Quinn/Harris 2025.
75 Weertz et al. 2014, p. 30; Weertz et al. 2020, p. 63.

Baked clay tablets were produced from local deposits at the pilgrimage centre at Sonntagberg in Lower Austria since at least 1720. They are usually referred to as *Sonntagberger Fraisensteine*. '*Frais*' is an ancient historical colloquial term, popular in the Austro-Bavarian region, referring to various cramps, fits, spasms, convulsions and seizures experienced during childhood. Classified by some into 77 different types, different varieties of *Fraisen* were identified according to the symptoms presented. One popular preventive measure was the hanging of polyamuletic chains called *Fraisketten* around the neck of the infant, or on the bedstead.[76] In addition to protecting against fevers and convulsions, *Fraisensteine* were believed to defend the pregnant or nursing mother from shocks and frights that, according to the idea of maternal impression, might result in deformity or disease in the newborn. Produced in two sizes, the tablets are embossed with a distinctive motif depicting the Trinity in which the outstretched arms of the crucified Christ are being held up by God the Father (**Fig. 9**), evoking Albrecht Dürer's oil-on-panel altar painting (*Landauer Altar*) of 1511, now held in the *Kunsthistorisches Museum* in Vienna. The tablets could either be hung on the wall or worn on the person in order to effect its properties.[77]

6. Discussion

The consumption of holy dust or earth is an example of a particular type of geophagy in which the sediment has either been blessed or is believed to be imbued with sacred therapeutic power by virtue of its association with sites or people of great religious significance.

Whilst holy dust can be considered as *particulas* representative of the site of collection with all the spiritual, devotional and potentially supernatural power and association that may entail, it is not the only geological pilgrimage memento targeted and collected from specific sacred locales. Neither were samples of holy ground the exclusive preserve of the Roman Catholic Church. An order of scale larger, specimens of sand, gravel and rocks were also gathered systematically from significant holy sites, carefully curated and stored in fully labelled compartmentalised wooden boxes. Two such boxes survive in Lutheran Danish early modern collections and a third, dating to the 6th century, is in the Vatican Museum.[78] These boxes have been referred to as topographical reliquaries and they sample rocks from strategic sacred and illustrious holy sites associated with prominent sacramental events in the life of Christ such as those in Bethlehem (the Nativity), the River Jordan (Baptism), Calvary (Crucifixion) and the Mount of Olives (Ascension), as well as the grave of the Virgin Mary.[79] These natural souvenirs constitute a *pars pro toto* representation of the whole of Jerusalem and facilitated a step-by-step meditative devotional consideration of different stages in the life of Christ. Such spiritual tools in corporeal form acted as 'a portal that beckoned entry' and assisted the devotee in undertaking a 'mental pilgrimage' acting as 'tools giving access to the interior, spiritual world

76 Duffin 2021, p. 6.
77 Maurer 2007, pp. 43–47.
78 Nagel 2010, p. 219; Schriemer 2018, p. 138; Jürgensen 2022.
79 Jürgensen 2022, p. 6.

of the beholder or possessor'.[80] The concept and practice of mental pilgrimage was a well established and familiar exercise by the late Middle Ages.[81] We have uncovered no direct evidence to suggest that holy dust was utilised in similar fashion, but it is eminently possible that the power of place and dislocated geography might have inculcated and reinforced a sense of immanent power which helped to stimulate the deployment of holy dust in appropriate contexts of perceived spiritual and natural danger and medical need.

7. Conclusions

Earth and stone scrapings are mundane, everyday natural materials with little intrinsic therapeutic potential, other than whatever mineral content might be absorbed after ingestion, thereby boosting dietary micronutrient levels. Add, however, the power of place and historical association and these unprepossessing substances acquire a numinous quality: ordinary dust takes on a mysterious, transcendental nature furnished with sacred potential. Not just an easily portable souvenir with which to evoke memories of pilgrimage, holy dust represented a tangible link with the events, persons and activities of the Biblical past plus the subsequent experiences of the growing church. Such dust was transformative in the sense that it permitted the owner to make a multisensory spiritual connection with topographic locales in which God had intervened in the affairs of men. Veneration was a natural consequence and the materials could be revered as transport media of spiritual potency, foci for intensified grace and blessing and vehicles by which to prolong the pilgrimage experience.[82] Sites of martyrdom, habitation, burial and honouring of saintly characters, especially those whose lives and means of death were associated with the miraculous, spoke of blessing, grace and spiritual power. Since many examples of the miraculous involved instances of healing, supported by hagiographical accounts and local legends, it is perhaps no surprise that holy dust should be credited with being endowed with therapeutic and prophylactic properties, as well as the ability to divert and protect against evil.

As with relics, samples of holy dust can be viewed as metonyms of the saints with which they are associated, and portable elements of sanctity imbued with spiritual power. First Class sources of holy dust consist of physical bodily remains reputed to be receptacles of divine power, but examples are few, due partly to pressure on the supply of First Class relics, and partly to the fact that use of such sources diminishes stocks for future use. Basil of Caesarea (330–378) indicated that 'anyone who has touched the bones of a martyr receives some share of the holiness that comes from the grace inherent in the body'.[83] This transmission of grace, holiness and divine power through physical contact is a principle that applies not only to congregants, but also to relics and sources of holy dust. Second Class sources have come into direct contact with the body of the saint, including the coffin, tomb, grave earth or living area occu-

80 Jürgensen 2022, p. 7.
81 Rudy 2011.
82 Limor 2017, p. 15.
83 Basil the Great 2012, p. 224.

pied by them, transforming the holy dust into vectors of divine might endowed with therapeutic potential.

The transmission chain of grace is acclaimed as being effective in instances where contact is a little more remote. Third Class sources are a little more removed, comprising items such as adjacent soil from the cemetery or scrapings from the walls of shrines. A Fourth Class of holy dust source is proposed to embrace wider association with the holy person, such as the walls of churches dedicated to a particular saint, wayside shrines and crosses, and specially consecrated sands. Indeed, it is interesting to speculate that secular sources of therapeutic stone powder, including city gates and city halls might also have had their origins in the framework of Christian philosophy (the gates effectively marking the transition between two worlds, and the city hall representing the judiciary – God's court), and might perhaps be accommodated in Fourth Class sources.[84]

The Byzantine and Medieval periods marked the heyday of holy dust collection, reverence and use, as evidenced in the early writings of chroniclers and hagiographers such as Gregory of Tours and the Venerable Bede. The counter reformation, however, saw something of a resurgence and diversification of the sources and uses of holy dust in such things as *Schabmadonnas* and *Fraisenstein*, sustained by an emerging religious folklore. The Council of Trent (1545-1563) took great pains to explain that images of Jesus Christ, the Virgin Mary and the Saints (such as those used to decorate and/or authenticate *Terra Sigillata*, *Eulogiae*, *Sonntagberger Fraisensteine* and *Schabmadonnas*, all fashioned from holy dust) were to be accorded due honour and veneration, but not worshipped directly or ascribed any intrinsic virtue.[85] On the subject of relics, the Council was clear that "the holy bodies of holy martyrs [...] are to be venerated by the faithful; through which (bodies) many benefits are bestowed by God on men".[86] This statement legitimised the cult of relics and, by extension, the tangible transmission of sanctity via the chain of grace through contact and the appropriation by supplicants of the potential therapeutic benefit deemed to be embodied in holy dust.

84 Weertz/Weertz Undated, p. 17.
85 Waterworth 1848, p. 234f.
86 Waterworth 1848, p. 234.

8. References

Assemani, Giuseppe: Bibliotheca orientalis Clementino-Vaticana, 3 (2). Romae 1728.

Bächtold-Stäubli, Hans / Hoffmann-Krayer, Eduard: Handwörterbuch des deutschen Aberglaubens. Vol. 3. Berlin/New York 1987.

Bar, Shaul: Resurrection or Miraculous Cures? The Elijah and Elisha Narrative Against its Ancient Near Eastern Background. In: Old Testament Essays 2011 24 (1), pp. 9–18.

Basil the Great: On Christian Doctrine and Practice. Translated by Mark del Cogliano. New York 2012.

Bede: The Historical Works of Venerable Bede. Translated by J. A. Giles. London 1845.

Bede: The Ecclesiastical History of the English People. Translated by Leo Sherley-Price. London 1955.

Bentley, James: Restless Bones. The Story of Relics. London 1985.

Black, William: Folk-Medicine: A Chapter in the History of Culture. London 1883.

Bormuth, Heinz: Steinmehl als Mittel der Volksmedizin. In: Gelurt. Beiträge zur Odenwälder Kultur und Geschichte 1995 (1996), pp. 9–12.

Boschetti-Maradi, Adriano: Bauforschung als Wirtschafts-, Sozial- und Kulturgeschichte: Ein Wirtshaus von 1768 am Pilgerweg nach Einsiedeln. In: Historische Archäologie 2009 (3), pp. 1–25.

Bugslag, James: Material and Theological Identities. A Historical Discourse of Constructions of the Virgin Mary. In: Théologiques 2009 17 (2), pp. 19–67.

Bynum, Caroline: Dissimilar Similitudes. Devotional Objects in Late Medieval Europe. New York 2020.

Dods, Marcus: The City of God by Saint Augustine. New York 1948.

Donkin, Lucy: Earth from elsewhere: burial in terra sancta beyond the Holy Land. In: Natural Materials of the Holy Land and the Visual Translation of Place, 500–1500, London/New York 2017, pp. 109–126.

Duffin, Christopher: Snakes' tongues, Serpents' eyes and sealed earths: Geology and Medicine in Malta. In: Occasional Papers of the St John Historical Society 2019, pp. 1–16.

Duffin, Christopher: Convulsion Chains. In: Jewellery History Today 2021 (1), pp. 6–7.

Duffin, Christopher: 'The periwig of a dead cranium': medicinal skull moss. In: Pharmaceutical Historian 2022 (52), pp. 75–85.

Eberstadt, Rudolph: Die sogenannten Teufelskrallen an alten Bauwerken. In: Korrespondenzblatt des Gesamtvereins der Deutschen Geschichts- und Altertumsvereine 1916 (11/12), pp. 286–293.

Eitelmann, Karl: Rittersteine im Pfälzerwald. Neustadt 1998.

Freeman, Charles: Holy Bones, Holy Dust. How Relics shaped the history of Medieval Europe. New Haven/London 2011.

Guinea, Mercedes: El uso de tierras comestibles por los pueblos costeros del Periodo de Integración en los Andes septentrionales. In: Bulletin de l'Institut français d'études andines, 2006 35 (3), pp. 321–334.

Hasluck, Frederick: Terra Lemnia. In: The Annual of the British School at Athens 1909/1910 (16), pp. 220–231.

Hendrickson, Brett: The Healing Power of the Santuario de Chimayó. America's Miraculous Church. New York 2017.

Imbach, Josef: Marienverehrung zwischen Glaube und Aberglaube. Düsseldorf 2008.

Johnson, Karl: Stories of Holy Dirt: Myth, Ethnicity, and the New Age at the Santuario de Chimayó. In: Journal of the Southwest, 2023 65 (3), pp. 314–353.

Jünemann, Joachim: Rillen und Näpfchen auf sakralen Denkmalen. In: Beiträge zur Geschichte der Pharmazie 1977 (4), pp. 25–31.

Jürgensen, Martin: Sacred Souvenirs and Divine Curios – Lutherans, Pilgrimage, Saints and the Holy land in the Seventeenth century. In: Religions 2022 (13), 909. https://doi.org/10.3390/rel13100909.

Lienert, Meinrad: Schweizer Sagen und Heldengeschichten. Stuttgart 1915.

Limor, Ora: Earth, stone, water and oil. Objects of veneration in Holy Land travel narratives. In: Natural Materials of the Holy Land and the Visual Translation of Place, 500–1500. London/New York 2017, pp. 3–18.

Maurer, Hermann: „Sonntagbergsteine" aus dem Waldviertel. Ein Beitrag zu den Schab- oder Fraisensteinen vom Sonntagberg. In: Unsere Heimat. Zeitschrift für Landeskunde von Niederösterreich 2007 78 (1), pp. 43–47.

Meehan, Denis: Adamnan's De Locis Sanctis. Dublin 1958.

Müller-Schwarze, Nina: Geophagy in Highland Guatemala. In: Human Mosaic 2004 (35/1), pp. 51–57.

Nagel, Alexander: The Afterlife of the Reliquary. In: Treasures of Heaven. Saints, relics and devotion in medieval Europe. London 2010.

Neumann, P. Wilhelm Anton: Drei mittelalterliche Pilgerschriften. III. Philippi Descriptio Terrae Sanctae. Österreichische Vierteljahresschrift für katholische Theologie 1872 11 (1–2), pp. 1–87.

Owen, Robert: The Convulsionists of St. Médard. In: The Atlantic Monthly February 1864, pp. 209–222.

Petschenig, Michael: Paulinus Périgueux. De Vita S. Martini. Wien 1888.

Quinn, Gerry: Healing soils and holy wells of County Fermanagh. In: Ray, Celeste / McCormick, Finbar (Hg.): Holy wells of Ireland: Sacred realms and popular domains. Bloomington 2023 pp. 51–59.

Quinn, Gerry/Harris, Drake: The Blessed Clay from Boho, Northern Ireland: Can the Nature of Spiritual Healing Sites Guide us Towards New Sources of Drug Discovery? Journal of Religion and Health 2025. https://doi.org/10.1007/s10943-025-02311-9

Raaijmakers, Janneke: Van het as van de martelaren tot het stof op een graf. Relieken in het West-Europese christendom, ca. 400–1600. In: Relieken. Krachtbronnen verweven met verhalen verschijnt ter gelegenheid van de tentoonstelling Relieken in Museum Catharijneconvent, van 12 oktober 2018 – 3 februari 2019, Zwolle 2018, pp. 37–45.

Raedts, Peter: Relieken in het Heilige Land. In: Relieken. Krachtbronnen verweven met verhalen verschijnt ter gelegenheid van de tentoonstelling Relieken in Museum Catharijneconvent, van 12 oktober 2018 – 3 februari 2019, Zwolle 2018, pp. 47–53.

Redman, Kenneth: Tierra del Santo, Blessed Clay Tablets of Middle America and New Mexico. Quarterly Journal of Crude Drug research, 1980 18 (4), pp. 153–157.

Rothkegel, Rüdiger: Mittelalterliche und neuzeitliche Tonstatuetten aus dem Kanton Zug. In: Zeitschrift für Schweizerische Archäologie und Kunstgeschichte 2006 (63), pp. 141–198.

Rudy, Kathryn: Virtual Pilgrimages in the Convent: Imagining Jerusalem in the Late Middle Ages. Turnhout 2011.

Savona-Ventura, Charles: Virtu della Pietra di S. Paolo. The Military and Hospitaler Order of Saint Lazarus of Jerusalem, Malta 2010.

Schriemer, Inge: Relieken zijn Krachtbronnen. In: Relieken. Krachtbronnen verweven met verhalen verschijnt ter gelegenheid van de tentoonstelling Relieken in Museum Catharijneconvent, van 12 oktober 2018 – 3 februari 2019, Zwolle 2018, pp. 110–155.

Tobler, Mathilde: ‚Wahre Abbildung'. Marianische Gnadenbildkopien in der schweizerischen Quart des Bistums Konstanz. In: Der Geschichtsfreund 1991 (144), pp. 5–426.

Valentini, Michael: Museum Museorum. Volume 2. Franckfurt am Mayn 1714.

Van Dam, Raymond: Saints and Their Miracles in Late Antique Gaul. Princeton 1993.

Van Dam, Raymond: Gregory of Tours: Glory of the Martyrs. Liverpool 2004.

Van Strydonck, Mark / Ervynck, Anton / Vandenbruaene, Marit / Boudin, Mathieu: Relieken. Echt of vals? Leuven 2006.

Vikan, Gary: Art, Medicine and Magic in early Byzantium. In: Dumbarton Oaks Papers 1984 (38), pp. 65–86.

Vinson, Martha: St. Gregory of Nazianzus. Select Orations. Washington, D.C. 2003.

Waterworth, James: The Canons and Decrees of the Sacred and Oecumenical Council of Trent, Celebrated Under the Sovereign Pontiffs, Paul III, Julius III and Pius IV. London 1848.

Twain, Mark: The Innocents Abroad. New York 1966.

Weertz, Jan/Weertz, Els. Krabsporen. Steenpoeder als geneesmiddel? Online 2025. https://www.debelemniet.nl/afbeeldingen5/krabsporen%20steenpoeder%20als%20geneesmiddel%202025.pdf

Weertz, Jan / Weertz, Els / Duffin, Christopher: Possible sources of therapeutic stone powder in North West Europe. In: Pharmaceutical Historian 2014 (44, 2), pp. 27–32.

Weertz, Jan / Weertz, Els / Duffin, Christopher: Therapeutic stone powder from ecclesiastical sources: supplementary comments. In: Pharmaceutical Historian 2020 (50, 2), pp. 59–64.

Yule, Henry: The book of Ser Marco Polo, the Venetian. Concerning the kingdoms and marvels of the East. London 1903.

Zammit-Maempel, George: Seals of medicinal *Terra Sigillata Melitensis* and Pauline traditions in Malta. Tarxien 2010.

Article published in
MEMO 12 (2025): Holy Dust. Staub als Material religiöser Praktiken.
DOI: 10.25536/2523-2932122025

Title
Holy Dust: Prophylactic, Apotropaic and Therapeutic

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DOI of Article
https://dx.doi.org/10.25536/20251202

Initial Publication
October 2025

Last check of all references
15.09.2025

Recommended Citation
Duffin, Christopher J./Weertz, Jan/Weertz, Els: Holy Dust: Prophylactic, Apotropaic and Therapeutic. In: MEMO 12 (2025): Holy Dust. Staub als Material religiöser Praktiken, pp. 12–36. Pdf-Format, doi: 1025536/20251202.

Inhalt

MEMO 12 (2025): Holy Dust