

CHAPTER THREE

MEDICINAL HOT SPRINGS AND HEALING SPAS IN THE GRAECO-ROMAN WORLD

si primum omnibus templis saluberrimae regiones aquarum que fontes in hic locis idonei eligentur, in quibus fana constituantur, deinde maxime Aesculapio, Saluti, et eorum deorum quorum plurimi mediccnnas aegri curari videntur [= In the case of all sacred precincts we select very healthy neighborhoods with the suitable springs of water in the places where the fanes are to be built, particularly in the case of those to Aesculapius and to Salus, gods by whose healing powers great numbers of the sick are apparently cured].

Thus did the first century BCE Roman architect Marcus Vitruvius Pollio explain the basis for the correct selection of a site for a new sacred precinct. He recommends choosing a healthy spot with a spring for all gods but especially for those connected to healing when planning a new temple.¹

Most sacred buildings at the sites of medicinal hot springs, known from antiquity, cannot be identified nowadays. Some of the springs were blocked and others dried up. Where they have remained in use, the ancient structures have usually been subsequently modified or replaced by later buildings.²

The following is intended merely as some general observations on the original use of hot springs for medicinal purposes; the healing qualities of such springs; ritual worship of the therapeutic sites; the military presence at these sites; and the archaeological finds in the Graeco-Roman world. This chapter will focus on a historical cross section of the socio-economic, cultural and religious aspects of these places. Bath Spa in Gloucestershire, Britain, will function as a model for those fascinating aspects. (See Figs. 1, 2 and 3).

¹ Vitruvius, *De Architectura* 1.2.2; See also Allen (1998): 49.

² Jackson (1990a); Dvorjetski (1992a); idem, (1992b).

3.1 THE ORIGINAL USE OF HOT SPRINGS FOR MEDICINAL PURPOSES

As early as the era of Hippocrates (ca. 460–370 BCE), who is traditionally regarded as ‘the father of medicine’, bathing was considered not simply as a measure of hygiene. Its properties of cleaning and refreshing were augmented by more general effects, particularly its healing and curing qualities. Bathing was considered one of the means by which a person could both maintain and restore health. The use of hot springs for medicinal purposes originates in the teaching of Hippocrates. In his day, the method became practical and of benefit to the sick.³ Hippocrates’ ideas were developed mainly by Galen, the Greek physician, anatomist and writer on medicine and philosophy (129–ca. 199 CE), who does not elaborate at length on the benefits of spring water and bathing, but his medical advice includes the use of thermo-mineral waters.⁴ Others were Celsus, the encyclopaedist, whose writings on medicine are extant (ca. 25 BC–50 CE); Soranus of Ephesus, the most famous physician of the Methodist sect, who studied in Alexandria before going to Rome to practice during the reigns of Trajan and Hadrian (90–150 CE); Oribasius, the Greek physician and medical writer from Pergamon of the fourth century CE; and Caelius Aurelianus, who lived in the fifth century CE and preserved Soranus’ treatise.⁵

Medicinal hot springs were recommended for the treatment of specific complaints, such as disturbances of paralysis, muscle disorders, and diseases of the joints, most notably gout; urinary diseases, including bladder stone; digestive disorders and internal ailments, including colic, liver abscess and ‘wasting’ diseases; skin diseases, including psoriasis and ulceration; eye diseases, head pains, and insanity; female disorders, including infertility; fevers, pneumonia, respiratory problems and chest

³ Hippocrates, *Regimen in Acute Diseases* 65–68; Leibowitz (1960): 341–348; Cohen and Drabkin (1966): 507–508; Fytikas, Leonidopoulou and Cataldi (1999): 86, 89.

⁴ Hippocrates, *Places in Man* 43; Galen, *In Hippocrates De Natura Hominis* 15–21; See also Ginouvès (1962): 21–225; Leibowitz (1969): 911–915; Villard (1994): 41–60; Jouanna (1994): 25–40; Buchman (1994): 8; Ruoti, Morris and Cole (1997): 3; Allen (1998): 36–37; Nolte (2001): 7.

⁵ Fontanille (1985): 15–24; Yegül (1992): 15–24, 352–355; Heinz (1996): 2411–2432; Jackson (1999): 107; Allen (1998): 102–103; Nolte (2001): 6–7.

pains; convalescence, including recovery from wounds and surgery.⁶ Such illnesses as these, though not psychological in causation, would certainly have been alleviated by faith, warmth and relaxation.⁷

Asclepiades, the first century BCE Greek physician, who introduced medical methods to Rome, stubbornly extolled the use of the baths for the sick as well as for the healthy. He widely used cold water for external and internal therapy;⁸ as a result, Pliny the Elder named him *frigida danda praeferens*, the giver of cold water.⁹ While many despised his teaching, many others esteemed his methods, and hydrotherapy became popular during the first century BCE. Less extreme were the treatments recommended by Celsus, who wrote his treatise *De Medicina* some decades after the cure of Augustus by Antoninus Musa, one of Asclepiades' pupils.¹⁰ Celsus's book gained wide recognition as a valuable source of Hellenistic medical knowledge. He specialized in the doctrines of Asclepiades and regarded the use of baths as an integral part of treatment for fatigue, chills, high fever, and especially for diseases of the skin or sinews, Podagra [= Gout], wounds, digestive disturbances, weakness, eye disease and post-operative convalescence.¹¹ It should be noted that despite the successful treatment of Augustus by Musa, Celsus recommended hot baths rather than cold ones for sufferers from liver abscesses and warned against all cold things.¹² The Greek physician Soranus of Ephesus, in his work *Γυναικεῖα βιβλία*, regarded baths as particularly valuable for the relaxation of physical and mental tensions. He believed that while such relaxation was very beneficial during the later stages of pregnancy, it was detrimental early on, when the seed or embryo could be expelled from a relaxed uterus. Bathing in natu-

⁶ See, for example, Hippocrates, *Aphorisms* 5.25; idem, *Regimen in Acute Diseases* 66; Celsus, *De Medicina* 1.1–4.7; 2.14.17–18; 3.6.12.15.20.22.27; 4.2.12.15.31; 5.26–28.30; 6.6; 7.26; Soranus, *Gynaecia* 1.46.54–56; 3.10–16.28.32.38.44; 4.38; Caelius Aurelianus, *De Acutis Morbis* 5.4.77; See Temkin (1991): 48, 55–56, 135–142, 152, 159–160, 167–168, 205; Jackson (1990a): 1–2; idem, (1999): 108–109; Dvorjetski (1994a); idem, (1997): 463.

⁷ Cruse (2004): 112.

⁸ Rawson (1982): 358–370; idem, (1985): 170–184; Vallance (1990); Jackson (1990a): 3; Vallance (1993): 693–727; Jackson (1999): 108.

⁹ Pliny, *Naturalis Historia* 26.

¹⁰ Suetonius, *De Vita Caesarum*, *Augustus* 80.1; See Allen (1998): 31, 122; Nolte (2001): 9.

¹¹ Celsus, *De Medicina* 1.1–3; 2.17; 3.12.20.22; 4.15.31; 5.26–28; 6.6; 7.26; See also Allen (1998): 31.

¹² Celsus, *De Medicina* 2.14.17–18; 3.2.7.

ral waters relieves the *status strictus*—narrow state of women suffering from menstrual or uterine disturbances.¹³ Galen is somewhat cautious in prescribing spa visits and thermo-mineral water use. He is aware of the potential harm caused by springs as well as their benefits, and therefore tends to advise bathing and water in general rather than any specific location and type of spring.¹⁴

In the absence of any considered account from antiquity of the functioning of a spa,¹⁵ Soranus' description of the special arrangements to be made for patients suffering from leg paralyses is nonetheless illuminating:¹⁶

Have the patient use mineral waters, especially warm springs... and prescribe swimming in the sea or in these springs. At first an inflated bladder should be attached to the paralysed parts to reduce the effort required in swimming. Also direct a stream of water... upon the paralysed parts, for the impact of the water is very effective in altering the condition of the body.

Like Soranus, Celsus stipulated the form of treatment for paralysis and other disorders of the stomach with some precision:¹⁷

But the commonest and worst complaint of the stomach is paralysis, when it does not retain food, and the nutrition of the body is wont to cease, and so it is consumed by wasting. In this sort of disease the bath is most harmful; reading aloud and exercise of the upper limbs are needed, and also anointing and rubbing; it is good for the patient to have cold water poured over him, and to swim in cold water, also to submit his stomach to jets of it, especially at the back of the stomach from the shoulder-blades downwards, to bathe in cold medicinal springs, such as those at Cutiliae and Simbruinum.

Pliny the Elder and Vitruvius recognized various types of hot and medicinal springs.¹⁸ Their classifications do not differ from those of the modern era. They list sulfurous springs, whose waters 'refresh the

¹³ Soranus, *Gynaecia* 1.46.54–56; 3.10–16.28.32.38.44; Temkin (1991): 48, 55–56, 135–142, 152, 159–160, 167–168; Jackson (1990a): 4; See also Edelstein (2003): 851.

¹⁴ Allen (1998): 43–44.

¹⁵ Jackson (1999): 114.

¹⁶ Caelius Aurelianus, *De Acutis Morbis* 2.44–48.

¹⁷ Celsus, *De Medicina* 4.12.

¹⁸ Pliny, *Naturalis Historia* 31.3–8.33.45; 32.32–33; Vitruvius, *De Architectura* 8.4–5; See also Healy (1986): 111–146; Rowland (1999): 97; Allen (1998): 21–22, 24, 34–35, 113.

weakness of muscles and tendons' by heat; aluminous springs, immersion in which served to treat palsies, because the water opens the skin pores; bituminous springs which provided water for the irrigation and healing of 'internal deficiencies'; alkaline springs; and acid springs, whose water, when imbibed, dissolves bladder stones. Pliny the Elder even collected references that contained instructions for the healing of wounds, dislocations, fractures, gout, foot conditions, fever, sciatica, headaches, psoriasis, diseases of the eyes and the ears, insanity, and infertility of women.

As in more recent times, the drinking of mineral water for health purposes was a major activity and integral part of spa therapy. The water functioned as either a purge or an emollient for many internal ailments. Vitruvius, Pliny, Seneca, and others, were dealing with a specific malady or range of diseases. Seneca the younger, for instance, recommends drinking thermo-mineral water to relieve internal pain and to alleviate problems of the lungs and bowels.¹⁹

Spa water was sometimes consumed in legendary quantities, on the assumption that if a little did you good a lot must do you a lot of good. Pliny the Elder castigated not just those who bathed overlong in hot Sulphur springs, but also those who through ignorance or bravado drank excessive quantities of medicinal waters.²⁰

Many people make a matter of boasting the great number of hours they can endure the heat of these Sulphur waters—a very injurious practice... Those make a like mistake who boast of the great quantity they can drink. I have seen some already swollen with drinking to such an extent that their rings were covered by skin, since they could not void the vast amount of water they had swallowed.

Excepting such occasional excesses, the therapeutic use of water at spas was probably often beneficial and equally important, seldom detrimental to health. As such, hydrotherapy and balneology as well can reasonably be regarded as two of the milder and more positive aspects of whole medicine in the ancient world.

¹⁹ Vitruvius, *De Architectura* 8.3; Rowland (1999: 99–103; Pliny, *Naturalis Historia* 31.3–8. 32–33; Seneca, *Quaestiones Naturales* 3.1.2; See Thomson (1978): 8–9; Garbrecht and Manderscheid (1994): I: 85; Allen (1998): 109–111; Manderscheid (2000): 531.

²⁰ Pliny, *Naturalis Historia* 31; 32; For a similarly excessive zeal in the use of cold baths, see also *ibid.*, 29.5; Jackson (1990a): 12; idem, (1999): 116; On the presence of physicians at the spas, see chapter 3.4 dealing with *The Military Presence at the Medicinal Sites and the Archaeological Finds*.

3.2 HEALING QUALITIES AND SPA THERAPY

In the lands which they conquered, the Romans systematically developed hot springs in general and thermo-mineral springs in particular. They were attracted by the curative properties of thermal springs and often settled in their vicinity, and erected magnificent bathhouses as they encountered them in newly conquered provinces. Most of the therapeutic sites in Europe were, in fact, built upon their remains. Certain sites became famous for their healing properties, as at Aix-en-Provence (*Aquae Sextiae*), Vichy (*Aquis Calidis*), of Aix-Les-Bains in Savoy (*Aquae Gratianae*), Baden (*Aquae Helvetiae*), Baden-Baden (*Aquae Aureliae*), Wiesbaden (*Aquae Mattiacae*), Aachen (*Aquae Granni*), Bath (*Aquae Sulis*), and many others. Although not all were directly associated with healing cults, the majority were already presided over by a native deity or spirit, for the phenomenon, especially, of hot water bubbling up from the depths of the earth must always have inspired a sense of wonder and a belief in the limitless powers of the divine spirits.²¹

By the Roman Imperial era, baths in general were available not just to a wealthy elite but to many people at most social levels. In the absence of a proper understanding of the causes and communicability of diseases, the sick appear not to have been segregated from the healthy in the communal bathing facilities at baths and spas. Jackson assumes that certainly there is little evidence to suggest that they were. Even the well known regulations attributed to Hadrian in the *Historia Augusta*, ‘No-one except the sick is allowed to bathe in public before the eighth hour’ [= before about 1.00 pm], which might be explained as a piece of positive discrimination in favour of the sick. It seems that after that time all, healthy and sick alike could bathe.²²

Certain sources were especially renowned for their healing properties and were singled out for mention. Thus, for example, the intensely

²¹ Smith (1922); See the sites' names in the index; Jackson (1988): 162; King (1990): 37, 68, 92, 142; Albu, Banks and Nash (1997): 4–7; Authier and Duvernois (1997), s.v. ‘Aix-en-Provence’; Wohnlich (2001): 164–165; Kellaway (2001): 242–256, with an intensive bibliography; Wood (2004): 31; Manderscheid (2004); see the sites' names in the index; For the chronological development of ancient scientific thought on geothermal heat (6th century BC–4th century CE), see Cataldi and Chiellini (1999): 165–178.

²² Jackson (1999): 107, 109; On Hadrian's regulations see *Historia Augusta*, *Hadrian* 22.7–8.

cold waters of Aquae Cutiliae, near Rome. They were praised by Pliny the Elder and by Celsus for their effectiveness in healing paralysis and other disorders of the stomach disorders;²³ and the sulfurous springs of Aquae Albulae, between Rome and Tivoli, described by Vitruvius, the geographer Strabo, and the Roman poet Martial, recommended by Pliny the Elder for the healing of wounds.²⁴ Suetonius mentions that Emperor Augustus frequently attended the hot springs of Albulae ‘every time that his nerves required relief’ and when he was troubled with rheumatism, ‘contented himself with sitting on a wooden bath-seat... and plunging his hands and feet in the water one after the other’.²⁵ Although the waters at Albulae were usually classified as cold, Caelius Aurelianus describes them as hot springs which can provide treatment for arthritis or for paralysis.²⁶

The largest island of the Grecian archipelago, near the town of Aedepsus, modern Lipsos, was known as ‘The Baths of Heracles’. The Greek biographer Plutarch mentions its therapy by the dictator L. Cornelius Sulla:²⁷

During Sulla’s stay about Athens, his feet were attacked by a heavy benumbing pain, which Strabo calls the first inarticulate sounds of the gout. Taking, therefore, a voyage to Aedepsus, he made use of the hot waters there, allowing himself at the same time to forget all anxieties, and passing away his time with actors.

These springs, strongly sulphurous with outflow temperature of 78°C, rise a short distance inland at several points, and at last pour steaming over the rocks, which they have yellowed with their deposit, into the Euboic Sea. They are still frequented by the Greeks for the cure of gout, rheumatism and digestive disorders.²⁸ For bladder troubles, the waters of Aquae Auguriae were recommended by Caelius Aurelianus.²⁹

²³ Pliny, *Naturalis Historia* 31A; Celsus, *De Medicina* 4.12; See also Tacitus, *Annals* 11.13; See Allen (1998): 14, 31; On sacred springs to be cold waters, see Croon (1967): 225–246.

²⁴ Vitruvius, *De Architectura* 8.3.2; See Rowland (1999): 99; Allen (1998): 21–22, 26; Strabo, *Geographica* 5.3.2; Martial, *Epigrammata* 1.12; Pliny, *Naturalis Historia* 31.6.

²⁵ Suetonius, *De Vita Caesarum, Augustus* 82.2; See also Allen (1998): 26, 32, 104.

²⁶ Caelius Aurelianus, *De Acutis Morbis* 5.2.40; See also 2.1.48.

²⁷ Plutarch, *Vitae Demetrius et Antonius Pyrrhus et Caius Marius* 34.2; Ginouvès (1962): 362; Croon (1967): 244.

²⁸ Frazer (1951): 211–212; Fiedler (1840): 487–492; Neumann and Partsch (1885): 342–344; Croon (1967): 230, 246; Krug (1993): 183–184; Fytikas, Leonidopoulou and Cataldi (1999): 86–87, 90.

²⁹ Caelius Aurelianus, *De Acutis Morbis* 5.4.77.

We can infer that the natural hot mineral springs at Bath Spa in Gloucestershire, Britain, had been venerated from very early times. Such sites have universally been held in awe and respect. After the Roman conquest, the place was rapidly magnificent classical buildings.³⁰ Of all Roman-British towns, the most bath-conscious was Bath (Aqua Sulis) where people arrived—as they do today—to take waters. In spite of this well known fact there are no historical evidences from the Roman period to demonstrate the specific site. During the third century CE, Solinus, the Roman author of *Collectanea Rerum Memorabilium*, a descriptive book about places, recorded the luxurious furnishings of the springs at Britain and also commented: ‘there are many great rivers and hot springs richly adorned for the use of men. The patron godhead over these springs is Minerva, in whose temple perpetual fires never whiten into ashes’. Minerva was conflated with a local healer, Sulis, who presided over the great sanctuary.³¹ At Bath Spa the waters are said to benefit those suffering from rheumatism, gout, dyspepsia, skin diseases, anaemia, and diseases of the nervous system.³² (See Fig. 1).

Allason-Jones has recommended that doctors were present at the sanctuary at Bath and the practice empirical medicine went hand in hand with spiritual healing. Stamps for eye-physician, Janianus, may have held a regular clinic there. The many women who patronized Sulis’ shrine perhaps found especial help for child-bearing disorders. The model bronze and ivory breasts offered to the goddess may have been associated with lactation.³³ Henig has suggested that the ivory ones may have been worn as an amulet by a woman until she had successfully weaned her infant when, in thanksgiving for the vital supply of milk, she gave the models to Sulis.³⁴

One of the more famous ancient healing places was Baiae, on the coast of Campania, at the northern end of the bay of Naples. Plutarch relates that Marius, who fought against Jugorta, the king of Numidia, was advised to go to the hot springs of Baiae for treatment of his failing health: ‘he had been weakened by age and rheumatism’.³⁵ Baiae

³⁰ Potter and Johns (2002): 174; Kellaway (1991).

³¹ Solinus, *Collectanea Rerum Memorabilium* 22.10; According to him the shrine was called *fons Minervae*; See also Smith (1944): 15; Grant (1995): 50–53; Henig (1995): 43; Adkins and Adkins (2000): 211–212; Wacher (2002): II: 791.

³² Jackson (1999): 109, note 20; Smith (1944): 11–12, 14–15.

³³ Allason-Jones (1989): 156–157; Green (1995): 95.

³⁴ Henig (1988): 5–6.

³⁵ Plutarch, *Vitae Demetrius et Antonius Pyrrhus et Caius Marius* 34.2; See Smith (1922):

became the most fashionable Roman place of healing. Celsus advised sweating in hot vapour baths, especially the sulfur baths at Baiae, and Strabo described the site and its hot springs, which were appropriate both for the tastes of the discerning, and for the curing of diseases.³⁶ The wealthy upper classes and the crippled frequented the place in multitudes to utilize the waters and to take part in the social activities. Baiae became famous not only for its springs but also for its debauchery. Martial was one of many who described its temptations, which lured the virtuous.³⁷ Josephus describes the varied facilities of Baiae when recounting the visit of Caius Caligula:³⁸

There are in that place royal palaces, with sumptuous apartments, every emperor still endeavoring to outdo his predecessor's magnificence; the place also affords warm baths, that spring out of the ground of their own accord, which are of advantage for the recovery of the health of those that make use of them, and, besides, they minister to men's luxury.

The activities taking place in the baths at Baiae are described by the younger Seneca, whose rooms were adjacent to a bathing establishment.³⁹

So picture to yourself the assortment of sounds, which are strong enough to make me hate my very powers of hearing! When your strenuous gentleman, for example, is exercising himself by flourishing leaden weights, when he is working hard, or else pretends to be working hard, I can hear him grunt; and whenever he releases his imprisoned breath, I can hear him panting in wheezy and high-pitched tones. Or perhaps I notice some lazy fellow, content with a cheap rub down according as the hand is laid on flat or hollow. Then, perhaps, a professional comes along, shouting out the score; that is the finishing touch. Add to this the arresting of an occasional roisterer or pickpocket, the racket of the man who always likes to hear his own voice in the bathroom, or the enthusiast who plunges into the swimming-tank with unconscionable noise and splashing. Besides all those whose voices, if nothing else, are good, imagine the

621–622; D'Arms (1970): 23–28; Comfort (1976): 137–138; For a preliminary investigation of the spas in Campania, see Houston (1992): 356–379; Yegül (1996): 137–161; cf. Allen (1998): 10–11.

³⁶ Celsus, *De Medicina* 2.17.1; Strabo, *Geographica* 5.4–5.

³⁷ Martial, *Epigrammata* 1.42; See also Maiuri (1989); McKay (1989): 155–172; Amalfitano, Camodeca and Medri (1990): 183–234; For the upper class Romans' visits at Baiae and the surrounding area, see Allen (1998): 126–131.

³⁸ Josephus, *Antiquitates Judaicae* 18.249; Neuburger (1919): 71.

³⁹ Seneca, *Epistulae Morales* 56.1–2; See also Shelton (1988): 314.

hair-pluckier with his penetrating, shrill voice—for purposes of advertisement—continually giving it vent and never holding his tongue except when he is plucking the armpits and making his victim yell instead. Then the cake-seller with his varied cries, the sausage-man, the confectioner, and all the vendors of food hawking their wares, each with his own distinctive intonation.

However, the experience not exactly enjoyed by Seneca may not have been typical of all bathing establishments. According to Pliny the Younger, other healing places were more modest than Baiae.⁴⁰ The fourth century CE Greek biographer Eunapius notes that the thermal baths of Hammat-Gader were:⁴¹

Second only to those at Baiae, with which no other baths can be compared throughout the Roman world.

The Classical writers were acquainted with the curative springs of Hammei-Tiberias, Hammat-Gader, Hammat-Pella, Hammei-Ba'arah, Kallirrhoe, Emmaus-Nicopolis and Hammei-Livias. All of them will be demonstrated later on.⁴²

3.3 RITUAL WORSHIP

Many medicinal hot springs through the Graeco-Roman world were dedicated to Heracles, to the Nymphs and to gods with healing capabilities, such as Apollo, Aesculapius, Hygieia, Zeus, Jupiter, Vulcan, Artemis, Mars, Athena, Minerva, Venus, Mercury, Dionysus, Silvanus and the Three Graces.⁴³ All of those are evidenced by sculptures of the gods, votive offerings, and literary sources, including texts and inscriptions, which provide further information about the existence of

⁴⁰ Pliny the Younger, *Epistulae* 8.8.

⁴¹ Eunapius, *Vitae Sophistarum* 459; Dechent (1884): 190–191; Sukenik (1935a): 21; Lieberman (1946): 354; Hirschfeld and Solar (1981): 202; Hirschfeld (1987): 104; Geiger (1986): 375–376; Dvorjetski (1988): 92; Yegül (1992): 121; Dvorjetski (1994a): 16–17; Hirschfeld (1997): 5; Dvorjetski (1997a): 465; idem, (2001–2002): 492; idem, (2004): 19.

⁴² See the intensive discussion in chapter 4 on *The Historical-Archaeological Analysis and Healing Cults of the Therapeutic Sites in the Eastern Mediterranean Basin*.

⁴³ Smith (1922): 393; Frazer (1951): 209–213; Weiss and Kemble (1962): 11; Croon (1967): 230, 244; Jackson (1990a): 5–9; Dvorjetski (1994a): 16–19; idem, (1997a): 465–468; Albu, Banks and Nash (1997): 4–5; Fytikas, Leonidopoulou and Cataldi (1999): 84–85, 91–94; Cataldi and Burgassi (1999): 152.

religion in spas. Notwithstanding these do not provide a clear picture of the religiosity of a spa.

The choice of Heracles, the mythological hero, as patron of hot springs, and subsequently of medicinal hot baths, was based on a combination of the elements water and fire, fertility and destruction, which are apparently contradictory but are linked to his life and death. According to the second century CE Greek author Lucianus of Samosata, Heracles refused to make way for Aesculapius. They quarreled over this and Zeus decided in favor of Aesculapius, who was the senior of the two: 'It is only logical, Heracles, that Aesculapius should be placed above you, because he died before you.'⁴⁴

The hot springs of Thermopylae were among those that were dedicated to Heracles. Strabo explains that the name means hot gates,⁴⁵

Because there, near the place, there are hot springs which are dedicated [= by the local inhabitants] to Heracles.

Herodotus described the site in the fifth century BCE, emphasizing that an altar to Heracles stood there.⁴⁶ His contemporary Aristophanes, in his treatise, Νεφέλαι, 'The Clouds', alludes to the tradition of the period by asking rhetorically: 'Have you ever seen baths of Heracles that were cold?'⁴⁷ The anonymous author of the notable tenth century Greek lexicon *Suidae* deduces from the expression Ἡράκλια λουτρά that these baths were given to Heracles as a gift by Hephaestus.⁴⁸ In accordance with this expression, it can be assumed that the Greeks usually termed natural hot springs *Heracleia*.⁴⁹ Two other sites of medicinal hot springs were consecrated to Heracles. One is in Hierapolis (Pamukkale) southeast of Sardis. It gained wide publicity due to the reputed healing properties of its springs, which are still in use.⁵⁰ The other is the spa

⁴⁴ Lucianus of Samosata, *Dialogi Deorum* 15.13.238; On Heracles' capabilities as the god of hot springs, see Frazer (1951): 209–213; Boardman (1988): 787; Moitreux (1992): 67–76.

⁴⁵ Strabo, *Geographica* 9.4.13.

⁴⁶ Herodotus, *Historiae* 7.176.

⁴⁷ Aristophanes, *The Clouds* 1050–1052; See also Croon (1967): 244.

⁴⁸ *Suidae Lexicon* 581.

⁴⁹ Diodorus Siculus, *Bibliotheca Historica* 4.23.1; Leutsch and Schneidewin (1958): 174; Frazer (1951): 211.

⁵⁰ Strabo, *Geographica* 13.4.14; Vitruvius, *De Architectura* 7.3.10; Chandler (1776): 228–235; Davis (1874): 97–112; Kekeç (1989): 15–46; Dvorjetski (1992a): 38; Özgüler and Kasap (1999): 58–62.

of Aedepsus, on the west coast of Euboea Island, in a volcanic region which is subject to frequent earthquakes.⁵¹

The link between hot springs and the worship of Heracles was not confined to Greece alone. The Greek influence spread to Dacia—present-day Romania—IItaly, and Sicily.⁵² An interesting legend has been preserved by the first century BCE Greek historian Diodorus Siculus about the association of the deeds of the Nymphs with Athena and Heracles, with regard to the springs of Himera in Sicily:⁵³

In the region of Himera, where the Nymphs, in order to find favor with Athena, caused the hot water springs to erupt and flow forth vigorously when Heracles visited the island. And the inhabitants dedicated a town and a tract of land, which is called until now Athena.

The Greek poet Pindaros (520–442 BCE) calls Himera ‘the hot baths of the Nymphs’.⁵⁴ The city’s coins bear the figure of Heracles, as a youth or bearded, as well an image of a Nymph sacrificing at an altar. Behind her is a satyr standing in a basin below a fountain which pours from a lion’s head spout. These baths which are partially preserved are known by the modern name Thermi Imerese.⁵⁵

The beliefs of the healing powers of the local spring traveled with the Greek colonists to, for example, the Provence region. The Greeks had become established at Glanon, near Saint Remy-de-Provence, by the end of the third century BCE. There was already a Celto-Ligurian settlement here with a shrine dedicated to the curative waters and now a beautiful Hellenistic city was built, which reached its peak in the second century BCE. The city centre was dominated by a monumental temple built close to the miraculous fountain, which was dedicated to the Nymphs and to Apollo the Healer.⁵⁶

⁵¹ Strabo, *Geographica* 1.3.16.20; Thucydides, *Historiae* 3.87.89; Neumann and Partsch (1885): 321–323; Smith (1922): 392–393; Ginouvès (1962): 362, notes 11–13; Croon (1967): 244.

⁵² For Dacia, see for example Dessau (1902): *ILS*, II/1: no. 3891; For Italy see Wilmanns (1873): 227: no. 735c; Nissen (1885): 798; Frazer (1951): 213, and for Sicily, see Baedeker (1880): 356–357.

⁵³ Diodorus Siculus, *Bibliotheca Historica* 4.23.1; 5.3.4; See also Fytikas, Leonidopoulou and Cataldi (1999): 84.

⁵⁴ Pindaros, *Odes* 1.19.

⁵⁵ Ziegler (1929); Frazer (1951): 213; Krug (1993): 181–182; Penn (1994): 29, 139; Belvedere and Alliata (1988–2002): III.

⁵⁶ Lévéque (1987).

The relationship between the Etruscans and active geothermal manifestations included religious aspects, such as divination based on the shapes of the steam plumes from fumaroles, a unique belief in the afterlife, and the formation of cults for subterranean divinities. The worship of Velchans, the equivalent of the Greek God Hephaestus, keeper of fire and volcanoes, seems a practice initially borrowed from the Hellenic world. However, the Etruscans elaborated on it and brought the cult first to Etruria proper and afterwards to Southwestern Italy, site of trading outposts, such as Capua and Cumae at the Campania region.⁵⁷

The Celts of the third to the first century BCE worshipped curative springs and the goddesses associated with them. They used the waters of the thermal spring, for example, at Teplice, the German Teplitz, in northern Bohemia, and elsewhere for bathing therapy.⁵⁸

In several cases, votive offerings have been discovered in Italy, which demonstrate a pre-Roman cult use at sites with thermo-mineral spring. Three were found near Montegroto Terme (Aquae Aponi). Several bronze figurines, including a group of small horses, nearly 4000 clay vases together with a few bronze and gold vessels were found in the area where the spring waters are known to be collected—attest to religious activity. The small bronze feet and arm also provide evidence of making anatomical votive offerings at a healing spring which latter became a spa.⁵⁹ At Aquae Sinuessanae, some of the ex-votos of around 5000 statuettes are believed to be pre-Roman.⁶⁰ At Vicarello, a collection of votive offerings, including many vases and coins, was found in the basin around the spring. Most of the objects belong to the Roman period and some indicate that the cult began earlier. Republican coins were recovered from the spring, silver goblets, and a large number of metallic vases made of gold, silver and bronze. Many of them are inscribed with dedications to Apollo, Nymphs, Silvanus, and Aesculapius.⁶¹ A series of votive reliefs found on the island of Aenaria (Ischia), date from

⁵⁷ Cataldi and Chiellini (1999): 170–171.

⁵⁸ Drimba (1987); Albu, Banks and Nash (1997): 5; Chyský, Skalník and Adamec (1967).

⁵⁹ Lazzaro (1981): 31–44, 105–106; Migliolaro (1956): 35; Zanovello and Basso (2004).

⁶⁰ Arthur (1991): 111.

⁶¹ Heurgon (1952): 39–50; Colini (1968): 35–56; Künzl and Künzl (1992): 273–296; Allen (1998): 178, 182–183; Fytikas, Leonidopoulou and Cataldi (1999): 91–92.

the first century BCE through to the fourth century CE, are similar in style and probably are products of a local workshop. The inscriptions specially refer to the Nymphs and Apollo.⁶²

The literary sources from the Roman period reveal little about the nature of cult activity or religious belief at spas. The texts are as follows: A letter from Seneca to Lucilius reveals the religious belief which could exist with respect to springs. He says that springs of hot water are worshipped as divine.⁶³ He apparently sees no contradiction between the belief in the divinity of springs and his interest in natural science and rational medicine. Seneca efforts to explain the cause of thermo-mineral springs as part of natural science arise from his Stoic philosophy.⁶⁴ Martial mentions several times the Nymphs in their healing capacity. They are identified as having a role in the healing of a visitor named Philostratus at the baths of Aquae Sinuessanae. The thermo-mineral waters at Baiae are associated by him to Venus and Mars. Venus was typically found in contexts of bathing and health while Mars also had a role as healer, but is not normally found at baths.⁶⁵ Claudian attributes the heat of the springs at Aquae Aponi to Vulcan.⁶⁶ Allen points out that the lack of references to divinities at spas is somewhat curious. It would appear that in the descriptions of activity in spas, there was a much greater interest in the rational procedures which occurred. The few allusions to gods at the therapeutic sites are found almost only in the poets, who regularly make mythological references without clear cult implications.⁶⁷

Sculptural material recovered from several spas in Italy:⁶⁸ Agnano, Teanum Sidicinum, Aquae Vescinae, Aquae Tauri, Vicarello, Baiae, and

⁶² Forti (1951): 161–191.

⁶³ Seneca, *Epistulae Morales* 41.3.

⁶⁴ Seneca, *Quaestiones Naturales* 3.1–16; See also Griffin (1992): 40–42; French (1994): 166–178; Allen (1998): 197.

⁶⁵ Martial, *Epigrammata* 6.47; 9.58; 11.82; For Venus and Mars at Baiae, see *ibid.* 11.80; See also Jayne (1962): 432–433.

⁶⁶ Claudian, *Carmina Minora* 26.17–18.

⁶⁷ Allen (1998): 199.

⁶⁸ The survey from Italy is based mainly on Allen (1998): 176–192; For Aesculapius, see Kerényi (1960); Hart (2000); Fulvio (1887): 409; For Apollo, see Künzl and Künzl (1992): 274; For the Nymphs, see Fulvio (1887): 409–410; Bastianelli (1933): 398–421; For a discussion of the popularity of statues of Venus in baths, see Dunbabin (1989): 24–25; and for Venus at spas see Jayne (1962): 306; Robertson (1975): II: 390–391, 548–549; Ridgway (1990): I: 355–356; Allen (1998): 186; For Dionysus see Burkett (1985): 158; Jayne (1962): 318; Macchioro (1912): 284; For a discussion of Hermes as a healing god, see Jayne (1962): 331–332; On the spread of Egyptian cults at those spas, see Allen (1998): 188–190.

Aquae Aponi. Aesculapius is the most prominent as the best known of the healing gods. Several fragments from Aquae Vescinae preserve his arm, foot, and staff with an entwined serpent and other statues from Vicarello and Aquae Aponi; A statue of Apollo was found in a *nymphaeum* associated with the baths at Vicarello and from the Baths of Mercury at Baiae; The Nymphs' association with healing springs and Aesculapius made then appropriate for display at spas. Female figures identified as Nymphs are known from Agnano, Aquae Vescinae, and Aquae Tauri; Venus is regularly found in baths and also appears in healing spas as she is associated with ideas of beauty, luxury and health. At Agnano, the goddess is portrayed preparing for a bath and resembles to the Cnidian Aphrodite and to the Capitoline Venus. Another statue of Venus which is related to that of Capitoline Venus comes from the baths at Teanum Sidicinum. A third statue of the goddess was found at Agnano, and she has been identified as representing a Venus Armata. A small figure of Eros was beside her feet. In the Baths of Sosandra at Baiae there was a statue known as Aphrodite Sosandra; Each of two small figures from Teanum Sidicinum may be identified as Eros; Dionysus is also an appropriate figure to have in a spa. As the god of wine and intoxication he is the god who is capable of freeing the mind from cares and troubles. But he also had specific associations with healing. A statue of infant Dionysus and Hermes is known from Agnano as well as two statues of satyrs with Dionysus or with the Nymphs. At Aquae Tauri the bearded head of Hermes was found. As god of the *palaestra* and *gymnasium*, Hermes represents youth and vigour. Allen is absolutely convinced by clarifying that his image was viewed as an inspiration to those using the spa. He adds also that Hermes role as a leader of souls to the Underworld also had obvious implications for those seeking health, and in this function Hermes can be seen to have some association with healing as a guardian of life.⁶⁹

A number of gods who do not necessarily have a primary role as healers are also indicated in dedicated inscriptions from the spas in Italy. Thus, at Aquae Caeretanae, one inscription refers to Jupiter and another refers to Jupiter and Hercules.⁷⁰ In contrast with this, the most common reference to divinities in inscriptions is to Nymphs. Dedication

⁶⁹ Allen (1998): 187.

⁷⁰ AE (1989): no. 305.

on an alter and inscriptions on votive reliefs are known from Aquae Tauri, Aquae Sinuessanae, Puteoli, Vicarello, Aenaria, and Aquae Apollinares.⁷¹ Apollo could also be invoked together with the Nymphs as in Aenaria and Vicarello.⁷² In the latter site, an attempt was made to include as many gods as could be propitiated in a single dedication. Thus, Apollo, Silvanus, the Nymphs, and in one case, Aesculapius were named together in the inscription.⁷³ At Aquae Vescinae, an inscription dedicated to Hygieia, was found in the outlet of a thermo-mineral spring.⁷⁴

Throughout the Roman Empire, a deity of local or general repute was combined with the parallel Graeco-Roman deity in accordance with its power and influence. The healing gods of both Gaul and Germany were frequently identified with Apollo the Healer, as at the shrines of Essarois near Dijon, where an inscription records Apollo Vindonnus.⁷⁵ At Aachen, Apollo was affiliated with the local god, native deity, Grannus as the central deity of a group of medicinal hot springs.⁷⁶ Apollo Grannus was an especially popular healing deity of springs in the Rhine, Moselle region. Sometimes he had a divine partner, the goddess Sirona, who fulfilled the same role as Hygieia. Thus on a statue from the shrine of Apollo and Sirona at Hochscheid near Bernkastel, Sirona is depicted in the guise of Hygieia feeding a snake which is entwined around her forearm. An altar found in Aachen possibly depicts the image of Apollo Grannus sitting on a throne holding a lyre and a plectrum and carrying a quiver of arrows on his right shoulder. Its inscription indicates that the altar was dedicated ‘to fulfill a vow’ by Latinus Macer from Verona, who served as *praefectus castrorum* [= senior officer] of the Legion IX Hispania, who may have been restored to health or healing for recuperation at the spa.⁷⁷ Another high-ranking visitor to this site could have been Caracalla. Apollo Grannus was a famous healing deity, and the sick Emperor visited sites dedicated to

⁷¹ Mengarelli (1923): 343; *CIL* 10.4734; *CIL* 10.1592; *CIL* 11.3290.

⁷² *CIL* 10.6786; *CIL* 10.6787; 10.6788; *CIL* 3287—There is a direct reference to health in an offering *pro salute* (Vicarello).

⁷³ *CIL* 11.3289; *CIL* 11.3294.

⁷⁴ Fulvio (1888): 460; Giglioli (1911): 39–87; Sobel (1990).

⁷⁵ Hatt (1985): 205–238; Dehn (1941): 104–111, Pl. 14; Krug (1993): 176–177.

⁷⁶ Jackson (1990a): 8; idem, (1988): 163; Cüppers (1982); Hugot (1963): 188–197.

⁷⁷ Dehn (1941): 104–111, Pl. 14; Nesselhauf and Petrikovits (1967): 268–279; Jackson (1988): 163; Goethert (2001): 28; Wood (2004): 33–34.

him during his ‘temple tour’ between 211 and 217 CE, according to the evidence of Cassius Dio.⁷⁸ (See Fig. 4).

There is a connection of a votive inscription found at al-Harra in southern Syria to the local cult of Hammei-Ba’arah, known as Baaras springs, situated in Wadi Zarqa Ma’in in the eastern shore of the Dead Sea. The altar was dedicated by a certain Diomedes Charetos, a Roman official of the Bataneae in the rank of a governor (*eparches*) and military commander (*strategos*). For the sake of his recovery he donated the votive offering to Zeus Beelbaaros, the local god of the curative place of Hammei-Ba’arah. Unfortunately, no imagery representations survived to explain the features of this deity.⁷⁹

Before the penetration of Roman influence, the Dacians practiced balneal therapy and internal cures with mineral waters.⁸⁰ In Roman Dacia, thermal waters were used for therapy at places well known, such as Ad Medium (Băile Herculane) and Germisara (Georgiu). Of these, the most important was undoubtedly Ad Medium, where the springs were tapped and pipes, pools and buildings for balneal treatment were constructed. The curative qualities of the waters were acknowledged in dedications to the healing divinities Hercules, Aesculapius and Hygieia, ‘dis et numinibus aquarum’, to the warm springs ‘fontibus calidis’ and to the spirit of the place Genio Loci.⁸¹ Germisara, with the renowned ‘Thermae Dodonae’, was equipped for curative baths by a detachment of the Legion XIII *Gemina* from Apulum.⁸²

One of Baiae’s impressive edifices is the Temple of Mercury, a vaulted circular building with high windows that served for illumination and ventilation. The water entered the structure of a *nymphaeum*. Statues decorated the niches. Nearby are two other bathing complexes: the baths of Sosandra on three levels, and the baths of Venus. The Temple of Venus is a huge vaulted building, reminiscent of the unique vaulted

⁷⁸ Cassius Dio, *Historia Romana* 78.15.3–7; Engelmann (1980): no. 802; Jackson (1990): 8; Drug (1993): 175; See also the discussion in chapter 7 on *The Roman Emperors at the Spas in the Eastern Mediterranean*.

⁷⁹ Sourdel (1952): 45–46; Hübner (1995): 252–255; Weber (1997): 332–333; On Hammei-Ba’arah and the identification of the local god Zeus Beelbaaros, see the discussion on *The Historical-Archaeological Analysis of Hammei-Ba’arah* in chapter 4.5.

⁸⁰ Drimba (1984).

⁸¹ Macrea (1969); Ardet (1996): 3; Sauer (1996): 68; Cohut and Árpási (1999): 244–245.

⁸² Szabó (1978); Albu, Banks and Nash (1997): 5; Cohut and Árpási (1999): 243–244.

structure in Pergamon dedicated to Aesculapius which is associated with therapeutic bathing or some similar form of hydrotherapy.⁸³

Four deep-bowled pans were found at Baden. Two of them were dedicated to Mercury by T. Cammianius Bacchus ‘gladly and willingly in fulfillment of a vow’, perhaps after a successful treatment;⁸⁴ and one from Augst in Switzerland inscribed with a dedication to the Gallic healing pair Apollo and Sirona.⁸⁵

One of the principal Roman imperial medicinal hot baths in Britain was at Bath Spa, also known as Aquae Sulis. The predominant local deity was Sulis Minerva—a combination of the Celtic Sul or Sulis and Minerva, the Roman goddess of wisdom, invention, the martial arts and crafts, who also had a healing aspect as Minerva Medica. She may have been invoked at Bath as a spirit of the craft of medicine, in other words, associated with both healing and craft-skills. First and foremost Sulis was the native goddess of the curative hot springs beside the River Avon at Bath. The numerous inscriptions on stone and lead or pewter attest to her equation with Minerva. As happened with Mars in Celtic Europe, the war-element in Minerva’s cult may have been transmuted to guardianship against disease. The cult of Sulis flourished because of her reputation as a goddess of healing and because the springs produced curative hot water, which could ease gout and rheumatism.⁸⁶

Two of the impressive finds from Bath are a life-size gilded bronze head of Minerva from a life-size statue, probably the cult figure itself, and a sculptured cornice which features two winged figures near a Gorgon’s head—a classical motif which is presented in Celtic style. This blend of two entirely different iconographic traditions reflected very well the identity of Minerva and Sulis. Furthermore, the Gorgon sculpture has several characteristics which are reminiscent of the deities of sun and water. Above the monumental opening between the temple *temenos* and the holy spring, the relief on the cornice shows the head of

⁸³ Behr (1968): 27–28; Ziegenaus (1981): 76–100; Yegül (1992): 106–108; idem, (1996): 93–110; Allen (1998): 82–101; Jacobson and Wilson-Jones (1999): 57–71; Branda, Luciani, Costantini and Piccioli (2001): 609–614.

⁸⁴ Wiedemer (1967): 91–92; Jackson (1990a): 12.

⁸⁵ Staehelin (1948): 538–541.

⁸⁶ Green (1995): 93–94; Grant (1995): 50–53; See also Smith (1922): 501; Smith (1944): 17–18; Neville Havins (1976): 13; Sauer (1996): 63–68; Adkins and Adkins (2000): 212.

the sun god, Sol, being held by two water Nymphs above a rock from which the spring water gushes.⁸⁷ (See Fig. 2).

The spring in Bath Spa was always the dominant component of the bathing complex and the focus for personal contact with the goddess, where vows, prayers, requests and thanksgiving took place. Grateful suppliants and others could reach the spring from the temple to bathe, to contemplate the sacred waters, and to cast gifts into the spring-water, including money and more personal objects such as brooches, pins, shoes, spindle-whorls, and their votive offerings in gratitude for the healing bestowed by Sulis-Minerva. The ailments from which the people suffered can be surmised from the artifacts that have been found at Aquae Sulis, such as a fragment of a bronze breast and a carved ivory cameo featuring breasts and the vows of those treated. More than 20 Roman vessels with flat handles, made of pewter, copper or bronze, were found in the vicinity of the spring. Six of them bear dedicatory inscriptions to the local gods Sulis or Minerva. This type of pan was used in cultic ceremonies such as libations and the serving of wine, but could certainly have been utilized at Bath for drinking water as a remedy. Jugs or deep jars have been found at other medicinal sites and temples, such as four from Baden, two of which are dedicated to Mercury 'joyfully and willingly in fulfillment of a vow'.⁸⁸

We know of some employees of the Temple of Sulis Minerva. One of them was the temple augur Lucius Marcius Memor, whose inscribed statue base in its original position was uncovered on the precinct floor. As a *haruspex* [= gut-gazer] he would have been a member of an elite class of augurs who officiated in the principal temples of the Empire, foretelling the future through their closely guarded knowledge of omens. There is some direct evidence for ritual activities associated with the veneration of Sulis: a priest of the cult, Gaius Calpurnius Receptus, served at the temple until his death at Bath Spa aged 75. His wife, Calpurnia, who had once been his slave, set up his tombstone, a simple affair carved piously in the form of an altar. Two other dignitaries connected with the temple were Claudius Ligur and Gaius Protacius. They were responsible for the restoration and repairing of a monument or

⁸⁷ Richmond and Toynbee (1955): 97–105; Cunliffe and Davenport (1985): 114–115; Yegül (1992): 117–119; Cunliffe (1984): 40, Fig. 40.

⁸⁸ Cunliffe (1995): 16–60; Davenport (1999): 84–89; See also Green (1995): 96; Jackson (1990a): 11–12; For Baden see Wiedemer (1967): 91–92.

building belonging to the temple. Cunliffe records that both of them were probably public-minded citizens willing to show their devotion to the gods, and incidentally to their fellows, by making a donation in aid of good works.⁸⁹

People would have flocked to Bath from other parts of the Roman Empire and from all over the Celtic world in search of divine aid. Some erected alters or tombstones to the gods for their safe journey or their recovery or for some other service. Thus, Peregrinus son of Secundus, a Treveran from Gallia Belgica, brought with him his local cult and offered an altar to his two favourite deities, Loucetius Mars, god of war, and his consort Nemetona, goddess of the sacred grove. She was Gaulish and British goddess whose name appears in many ancient inscriptions and was venerated by the Celto-Germanic people called the Nemetes, whose name shares her root name. Loucetius was the epithet of Mars. A *lapidaries* [= stonemason] from Chartres from northwestern France, Priscus son of Toutius, dedicated the inscription to Sulis, while the offering of Sulis, which may also have come from the main temple, was dedicated to a collection of local deities, the Suleviae. Altar to the Suleviae was also erected by the sculptor Sulinus son of Brucetus. Suleviae is the Latin name given to a Triad of Deae Matres [= the three mother goddesses] known in many parts of the Roman Celtic world. Iconographic and epigraphical evidence suggests that the goddesses were linked to cults of healing, regeneration, fertility, and maternity.⁹⁰ Dedications to gods other than Sulis Minerva, suggesting as Cunliffe has stressed, a separate shrine, a place where travelers could thank their own patron gods without risk of disrespect to the presiding deity.⁹¹

Inscriptions and curses that were written on metal tablets are perhaps the most revealing artifacts from the hot spring at Bath Spa. The evidence for the healing beneficence of Sulis at Bath is counterbalanced by a more sinister aspect of her character, namely her role as an avenger of wrongs. 130 *defixiones* or curse-tablets, small sheets of pewter or lead inscribed with messages to the goddess, telling her the nature of the wrong done, the name (if known) of the evil-doer,

⁸⁹ Cunliffe (1995): 102.

⁹⁰ Mackillop (2004): 303, 344–345, 393; Adkins and Adkins (2000): 143–144, 212; Wacher (2002): II: 731, 790.

⁹¹ Cunliffe (1995): 106.

and graphic details of the desired retribution. Most of the complaints involved theft of personal property, particularly cloths. Presumably these were items shed by bathing pilgrims and left unattended: cloaks, a cap, bathing-costumes, a bath towel, a bracelet, and even a pair of gloves are recorded. Unlike the stone dedications to Sulis, not a single Roman citizen is mentioned on the curse inscriptions. Many names were of Celtic derivation. The message, appealed 'to the goddess Sulis' or 'to Sulis Minerva', often ask for revenge to affect the victim's blood, eyes, fertility, sleep or bodily functions. Another course requests vengeance from Sulis through the victim's blood and health and those of his family, so that they should be able neither to eat, to drink, to urinate nor to defecate. The language used by the cursers was often savage and emotional. Thus, for instance, 'May he who carried off Vilbia from me become liquid as the water. May she who so obscenely devoured her become dumb'; 'be cursed in their blood, eyes, and every limb, and have all intestines eaten away'. Another translates to 'I curse Tretia Maria and her life and mind and memory and liver and lungs mixed up together, and her words, thoughts and memory; thus may she be unable to speak what things are concealed, nor be able'.⁹²

The goddesses were often requested to damage the physical or mental wellbeing of the perpetrator by lack of sleep, cessation of bodily functions, or death. The wretchedness could stop however, if the belongings were returned to the owner or sacrificed to the gods as requested. For example, one tablet translates to 'Solinus to the goddess Sulis Minerva. I give to your divinity and majesty my bathing tunic and cloak. Do not allow sleep or health to him who has done me wrong, whether man or woman, whether slave or free, unless he reveals himself and brings those goods to your temple'.⁹³

These texts provide a fascinating insight into provincial life in all its pettiness, what it was that made people irate and how they relied heavily on the presiding deity to help them every turn. For a miscreant, even if undetected, to suspect that he had been named and cursed must have been a fearsome uncertainty to live with.⁹⁴ Historians believe

⁹² Green (1995): 97–98; See also Cunliffe (1995): 53–54; Gager (1992): 21; Tomlin (1988): no. 41; Adams (1992): 1–26.

⁹³ Fagan (1999a): 37; See also Cunliffe (1995): 34.

⁹⁴ Cunliffe (1995): 54.

that many of these curses were written backwards in order to yield extra-potent magic.⁹⁵

Another of Bath's major religious might be learnt by several archaeological remains. In the year 1885, a carved block was found in a cistern of one of the thermal springs from a depth of 6 metres, depicting scenes from the Aesculapius legend. The block of stone carved was carved with three scenes: a naked woman standing by a reclining male; a quadruped walking beneath a tree; and a snake curled round a tree. This is a very appropriate fitting for a curative spring as Aesculapius was a deity associated with healing.⁹⁶

Apart from a dozen altars and other inscribed stones dedicated to the patron goddess Sulis Minerva, there are other known altars to other pagan deities. The sacrificial altar was the focus for public worship where priests conducted ceremonies and animal sacrifices. An altar to the *Genio Loci* or Local Spirit also one shared with Sulis Minerva, and an altar rededicated to the *Numen Augusti*, the Living Spirit of the Emperor; An altar or statue base to goddess of the hunt, Diana, which reads: 'To the goddess Diana the most holy, Vettius Benignus, freedman, fulfilled his vow'; Altars to Jupiter holding a trident in one hand while at his feet stands an eagle and to naked Hercules Bibax holding a large drinking vessel in one hand, the other resting on a knobbed club. Over his soldiers he wears a cape made of lion's skin, the paws of which are knotted over his chest; and alters for Apollo playing his lyre; and god Bacchus, who holds a *thyrsus* and pours a drink to a panther squatting at his feet; Stone relief of the god Mercury and relief carving of the Roman god Mercury and his Celtic consort Rosnerta. Beneath them are three hooded deities the *genii cucullati* and an animal; Another one is a goddess that cannot be identified, but the cornucopia which she holds and the libation flowing from the upturned vessel suggest that she is connected with fertility.⁹⁷

In short, then, temples were erected at these spas. Each site had a spring that served as the dominant part of the bathhouse complex and was dedicated to a God of Healing. Within the boundaries of the

⁹⁵ See http://faculty.vassar.edu/jolott/clas217/projects/bath_project/Tablets.htm; Allason-Jones (1999): 136.

⁹⁶ Cunliffe (1984): 157–158.

⁹⁷ Cunliffe (1995): 37–39, nos. 22–25; See other explanations in Cunliffe (1984): 51–53, nos. 24–26; See also in this chapter on the section of *The Military Presence and Archaeological Finds*.

Roman Empire local deities were integrated with their parallel deities in the Graeco-Roman world. One of the significant factors contributing to the Roman use of spas was a deeply embedded religious conviction about divinities associated with healing and springs. The main purpose for seeking a spa was to use the appropriate waters necessary for a cure—not to worship a god. Yet it cannot be overlooked that certain aspects of activity at the healing spas did have a religious content and that healing for the Romans belonged to the realm of the divine.⁹⁸ (See, for instance, Fig. 3). The curative springs in the eastern Mediterranean especially those located along the Syro-African Rift in the Jordan Valley are integrated to the typical elements of those places by their ritual worship to the gods with healing powers as well as by their unique names. Roman coins of the mother cities Tiberias, Gadara and Pella with their depictions, as well as engraved gems, enable us to reveal the worship of Athena, Heracles, Hygieia, Aesculapius, the Three Graces and other deities in their suburbs, the thermo-mineral baths. These spas will be enlightened extensively in the following chapters.⁹⁹

3.4 THE MILITARY PRESENCE

It is very rare for our literary sources to go into much detail about the location of the units of the Roman army at any fixed period. Even when they do so, these authors tended to be mainly concerned with the locations of the legions and are particularly vague about the garrisons provided by the *auxillia*. A large number of military sites have been located and a reasonable number partially excavated, although it should be noted that some regions, notably Britain and Germany, have received far more attention, and are therefore much better known, than others. The movements of legions, given their sheer size, status and frequent appearance in the epigraphic record, and comparatively straightforward to trace, although even so there is often doubt about the circumstances in which a few of these units disappeared. The Roman army—and especially in Europe—was spread around the frontier provinces. Deepest within the province were often the great fortresses of the legions usually lying on the most important route of communication,

⁹⁸ Allen (1998): 176.

⁹⁹ See chapter 8 on *The Numismatic Expression of the Medicinal Hot Springs*.

whilst auxiliary forts and small outposts were mainly dotted around the periphery. In the eastern provinces a significant number of military garrisons were based in or near cities. The continued good health and fitness of its soldiers was essential for maintaining the army's effectiveness. Roman bases and temporary camps were supposed to be sited as healthy a location as possible. Bathhouses were provided to keep the soldiers clean, and drains and latrines to ensure reasonable standards of hygiene.¹⁰⁰ The allocation of considerable military resources to the construction of facilities at medicinal sites was motivated not by public concern, but by the army's self-interest. The military sick or wounded were sent to these places, which also served as rest and recreation centres for healthy soldiers.¹⁰¹

The presence of soldiers spurred the economic growth and prosperity of the medicinal sites.¹⁰² There were not a few clashes developed between the soldiers and the local population. A fascinating document, dating from 238 CE illustrates the sufferings of the inhabitants of the village of Scaptopara in Thrace (Bulgaria) at the hands of the Roman soldiers, 'because of the hot springs' in the vicinity of their village. In a letter of complaint and supplication to the Emperor Gordianus III, the inhabitants complained that soldiers from two nearby forts made deliberate detours to take advantage of their excellent hot springs. What is more, they demanded food and hospitality and refused to pay for them, despite an order of the governor:¹⁰³

We are land-owners and inhabitants of a village close to two army camps, to which many come because of the hot springs... A great and famous fair is held every year two miles from the village. Those who come to the fair force us to give them lodging and other services without payment; and the military do likewise. Many of the governors of the region and many of your inspectors come here because of the hot springs. We shall

¹⁰⁰ Goldsworthy (2003): 99, 142–143; For the medical provision for the military in general, see Boon (1983): 1–12; Jackson (1993): 84; idem, (1996): 2228–2251; Cruse (2004): 204–207.

¹⁰¹ Collingwood and Wright (1965): nos. 139, 143–144, 146, 147, 152, 156–160; Scarborough (1969): 109–121; Davies (1970): 84–104, especially p. 100; Webster (1979): 248–254; Jackson (1988): 136.

¹⁰² See for example, Milne (1907): 144–145; Mylius (1936); Staehelin (1948): 487; Wiedemer (1967); Davies (1970); Unz (1971); Kunz (1986); Jackson (1988): 112–147; idem, (1990b): 5–27; Cunliffe (1995); Sauer (1999): 53–54.

¹⁰³ *CIL* III, no. 12336; Rostovtzeff (1957): 478–479; Alon (1971): 186–187; Dvorjatski (1992a): 165; idem, (1997): 468.

accept them, but we are unable to accept the others. We have several times told the governor of Thrace that we cannot stay in our village, and that we are forced to abandon it because of this exploitation... and that we, too, like many before us, are about to leave the village, the foundation of our homeland. Therefore we ask you to direct that we be not harassed by demands for lodging, since the bishop has given orders that only the emissaries of the governor and the inspectors should be given accommodation. If not—we shall flee our ancestral homes, and the royal treasury will suffer a great loss.

Friction between soldiers and civilians is clearly nothing new. At another spa, Hammat-Gader, Roman military interference in the therapeutic baths, is shown clearly in the *Jerusalem Talmud, Eruvin* 6, 4 [23c]. There is an interesting distinction between the arbitrary and 'legal' actions of the officials.¹⁰⁴

If the provincials sometimes had cause for complaint against the army, then they also had reason to be thankful. Many advantages accrued to those who lived in the neighbourhood of military garrisons, not least the opportunity to profit, by trade and services, from the presence of large numbers of well-paid soldiers. Beyond this the army participated in many 'community projects', especially the construction of roads, civic buildings, aqueducts, sewers and more. Many commanders no doubt made a conscious effort to establish and maintain good relations with the local population. They would certainly have worked together with the local aristocracy and town councils, while through common-law marriage of the other ranks; we may assume, according to Jackson, that there was normally a rapid integration of static garrisons.¹⁰⁵

A military presence was the key to the development of Aachen, as in many other places of healing in the Roman Empire. An altar found in Aachen possibly depicts the image of Apollo Grannus sitting on a throne holding a lyre and a plectrum and carrying a quiver of arrows on his right shoulder. Its inscription indicates that the altar was dedicated 'to fulfill a vow' by Latinus Macer from Verona, who served as *praefectus castrorum* of the Legion IX *Hispania* which had come to this place of healing for recuperation.¹⁰⁶ (Fig. 4).

¹⁰⁴ Lieberman (1946): 354; Urbach (1976): 125–126; Dvorjetski (1997): 468; idem, (2001–2002): 499.

¹⁰⁵ Jackson (1988): 136–137; See also Nutton (2003): 49–51.

¹⁰⁶ Nesselhauf and Petrikovits (1967): 268–279.

At the end of the first century CE, units of the Legion VI *Ferrata* and Legion XXX *Ulpia Victrix* stationed across the River Rhine at Novaesium, the modern Neuss, near Düsseldorf, and at Vetera, present day Xanten on the lower Rhine, built two bath complexes above the sulfurous hot springs, which were called Buchelthermae and Münster thermae. A *temenos* with two Roman Celtic temples, located within the site of the therapeutic Grannus springs, emphasizes the importance that was attributed to divine influence. Xanten might be an example for the presence of diagnostically medical artifacts that provide a glimpse of the healing aspect of baths. Surgical instruments, including two scalpels and a pair of bone chisels, permitted at Xanten the tentative identification of a suite of rooms as a surgery or *taberna medica*.¹⁰⁷ The most complete plan, with a systematic layout modified, is that of the *valetudinarium* [= hospital] in the double legionary fortress at Vetera, built in stone in the time of Emperor Nero. The hospital is described as possessing colonnaded rows of rooms, a reception ward and an operating theatre. Next to this was a room where there had been hearths which could also have served a number of purposes in connection with the functioning of a hospital. A corridor ran from one side of the long hall to the other where there may have been kitchens, cooking ranges and pantries. On the west side were hot and cold baths, latrines and rooms that could have served as treatment areas. A small set of surgical instruments found in a room at the Roman baths. The provision of these facilities meant that the hospital could be almost independent of the main garrison, making life easier for patients and also minimizing the spread of disease.¹⁰⁸

Military involvement is evident at Aquae Helveticae, the Swiss healing site of Baden, whose god was Mercury. It served the Roman legionnaires stationed in Vindonissa, modern Windisch in Switzerland. A building discovered there yielded numerous medical instruments, as well as tiles bearing the seal of the legion. This building has been identi-

¹⁰⁷ Gask and Todd (1953): 123–124; Hugot (1963); Cüppers (1982); Jackson (1990a): 8; idem, (1999): 109–110; For other archaeological evidence suggesting medical treatment at baths, see Künzl (1986): 491–509; idem, (1989–1990): 147–152; idem, (1996): 2433–2639.

¹⁰⁸ An excellent examination of Roman military hospitals, with the ground plans of several, is provided in Majno (1991): 381–390; See also Scarborough (1969): 66–75; Jackson (1988): 129–137; Newmyer (1996b): 78, 82–85; For the legionary fortress at Vetera, see Oelmann, Bader and Hagen (1932): 273–278; Jackson (1988): 48; Cruse (2004): 99.

fied as a military hospital and clinic.¹⁰⁹ Some of the instruments might have been for cosmetic use, while others included bronze catheters for males, most appropriate medical instrument to have been found at a spa: urinary complaints must have been commonly treated and relieved by spa therapy, then and now. Furthermore, the catheters also serve as a reminder that spas attracted physicians as well as patients, just as physicians were drawn to the crowds of potential customers at town baths. As yet no lithotomic instruments have been found in a baths context, but it is likely that lithotomists will have been drawn to baths and spas. These finds indicate that physicians were present at the healing sites.¹¹⁰ The excavations at Baden revealed a bath complex built on the slope from which the hot springs emerge. A system of conduits conveyed the hot spring water to a series of basins and pools. One of the pools was provided with stepped sides permitting perhaps as many as 100 bathers to sit immersed in the 45°C water. The arrangement is similar to that at the spa of Badenweiler, in the Black Forest.¹¹¹

Four doctors are known from inscriptions at the spas in Italy dated between the first and the third century CE. Three are from a collection of votive reliefs from Aenaria (Ischia). The first one is named Menippos, enslaved doctor, who traveled far to reach the place. He must have been a successful doctor who was able to offer a dedication. Two others were Aurelius Monnus and Numerius Fabus and their status is *alumnus*, indicating a student of medical knowledge, as in the following inscription. Another doctor is named Charinus in a funerary inscription found in the vicinity of Aquae Caeretanae.¹¹² Allen emphasizes that in none of these examples there is a clear suggestion of the role that a doctor might have had at a spa. He adds that it is worth nothing, however, that the presence of doctors at spas confirms the idea that spas were considered to be beneficial in essentially rational medicine. The dedications to the appropriate gods, the Nymphs and Apollo, which

¹⁰⁹ Hartmann (1973): 45–51; Wiedemer (1967): 83–93; Staehelin (1948): 487; Unz (1971): 41–45.

¹¹⁰ Milne (1907): 144–145; Künzl (1986): 491–509; Jackson (1990a): 9; idem, (1999): 112; On Roman lithotomy instruments, see Künzl (1983): 487–493; Jackson (1994): 167–209, especially p. 190, Fig. 2.

¹¹¹ Mylius (1936); Jackson (1990b): 5–27; Yegül (1992): 119–121; Krug (1993): 173–175.

¹¹² IG 14.892; CIL 10.6792; AÉ (1989): no. 307.

were offered also, demonstrate that the role of the doctor and the role of the god could live together.¹¹³

The occurrence of collyrium-stamps [= oculists' stamps] at Bath Spa, the Wroxeter baths, the Lydney healing temple complex north-east of Chepstow, and the Trier Barbarathermen may signify the activities at these places of doctors who treated eye diseases. Eye diseases were a common and troublesome affliction, and literally hundreds of ointments were used to treat them.¹¹⁴

It seems that the work of military physicians would not be restricted to the soldiers alone. Either on a formal or, more probably, an informal basis, people from surrounding farms, small towns or villages may often have come to the fort, fortress or spa for treatment by the medical staff. There were a range of medical staff supporting the legions. The most important was the doctor (*medicus*), at least some of whom seem to have ranked with centuries (*medicus ordinaries*). A good number of these men appear to have been from the Hellenistic provinces, and some at least were highly skilled. Beneath the *medici* were a range of personnel, including the *optio valetudinarii*, who seems to have overseen the administration of the hospital. Celsus' manual *De Medicina* provides detailed descriptions of treating various wounds, methods which were only a little less advanced than any employed until recent centuries.¹¹⁵ They must frequently have continued to practice, and also in a civilian setting. In this way the army spread knowledge of Graeco-Roman medicine in general and hydrotherapy and balneotherapy in particular throughout each new province of the Empire. As in other matters, this was not a one way process. At the same time as knowledge, experience and techniques were disseminated, new information and traditions of the local population were collected, which were constantly adding to the existing medical corpus.

Equally popular were the neighboring health facilities of Cumae and Puteoli [= Pozzuoli], as were the baths of Naples which, according to Strabo, are 'not inferior to those of Baiae'.¹¹⁶ For a long time, the coast from Naples to Misenum served as the preferred visiting place

¹¹³ Allen (1998): 152–154; On the use of the term *almnus*, see Nielsen (1987): 141–158.

¹¹⁴ Frere and Tomlin (1992): nos. 2246.9–2246.10; Künzel (1986): 495–498, Fig. 4, H2; Jackson (1999): 110.

¹¹⁵ Goldsworthy (2003): 101.

¹¹⁶ Strabo, *Geographica* 5.4.7.

for Roman Emperors and for the wealthy, not only on account of its natural beauty and favorable climate, but mainly because of its medical facilities. Imposing buildings are located to this day on the volcanic slopes of Baiae, including the hot baths' *stoas* and colonnades.¹¹⁷

Archaeological evidence for drinking at thermo-mineral baths is provided by some of the finds associated with spas. The striking archaeological discovery at Tunisia in North Africa of glass bottles bearing engraved schematic scenes enables us to envision the magnificent architectural highlights of Baiae and neighboring Puteoli. Among the featured buildings are a sun terrace (*solar[ium]*) and a temple portico, in which stands a statue of the rayed sun god Sol. These bottles were probably manufactured locally in the third-fourth centuries CE for sale to visitors who wished to drink the site's healing water.¹¹⁸ These objects, like the many small cups from Bath,¹¹⁹ and the numerous drinking vessels from Aquae Helveticae,¹²⁰ could have been used for consuming thermo-mineral waters at a spa. They may have also been souvenirs of visits and, as such, would have been particularly appropriate for a treatment which centred on drinking the water.¹²¹ (See Fig. 5).

Fascinating artifacts found at other medicinal sites illustrate the nature of hot springs in the Classical world. A silver and gilt *patera* handle from the Capheaton hoard in Northumberland, dating from the second-third century CE, shows Minerva presiding, with her foot on an upturned pot from which the sacred spring is gushing, symbolizing her power over the healing waters, possibly Bath Spa. Below, a figure takes a draught of the healing water from a fountain in front of a classical temple.¹²² (See Fig. 6). Silver and gilt bowl from Otanēs, near Castro Urdiales in northern Spain is ornamented in low relief with scenes of the Spanish spa of Salus Umeritana, as recorded by the encircling inscription 'Salus Umeritana.' Salus was equated by the Romans with Hygieia, the Greek goddess of health. The medicinal site

¹¹⁷ De Franciscis (1967): 212–214; D'Arms (1970): 119–120; Borriello and d'Ambrosio (1979): 59–73; Ling (1979): 33–60; Yegül (1988): 282; idem, (1992): 93–110; Krug (1993): 182–183; Medri, Soricelli and Benini (1999): 207–2(19).

¹¹⁸ Painter (1975): 54–67; Ostrow (1979): 77–140; Jackson (1990a): 7; For the bottling of mineral spring waters, see also Thomson (1978): 10.

¹¹⁹ Henig (1988): 5–36.

¹²⁰ *LA* (1893): no. 59; *ibid.*, (1966): no. 610; *ibid.*, (1980): no. 621.

¹²¹ Allen (1998): 116.

¹²² Walters (1921): 48–51; Henig (1995): 43, Fig. 8; idem, (1999): 154, Fig. 7; Cruse (2004): 112.

of Umeri in the Pyrenees became famous on account of its waters, which were bottled for dispatch to those who were unable to visit the place. The scene within the bowl depicts Salus reclining on top of the medicinal spring, her left hand symbolically directing the water that is flowing from a jug into a container. There is also an old man clad in a toga sitting in a chair and next to him stands a young servant who has brought him water from the spring. Another old man in a toga is seen sacrificing on the altar in gratitude for his cure. Finally, pair of mules is waiting patiently while a couple of barrels on their cart are being filled with the spring's water by a youth, perhaps a temple servant, carrying an amphora.¹²³ (See Fig. 7).

At Bath Spa the curative waters of Sulis Minerva were enjoyed not just by civilians but by the military too, as the many altars and tombstones of serving soldiers testify. There were the retired soldiers living in and around the town, soldiers on leave visiting the spring, and a constant stream of tourists from Britain and abroad. Some of the soldiers, like the cavalryman Lucius Vitellius Tancinus, a Spaniard from Caurium serving with the *ala Vettonum*, who died at the age of 46 after twenty-six years of service, may possibly have been stationed at the supposed fort at Bath. The same may also be true of Marcus Valerius Latinus and Antigonus, both soldiers of the Legion XX. Neither of the last two tombstones bears the words *Valeria Victrix* after the title of the legion, a fact which suggests that the tombs were erected at an early date in the first century, before the legion had won the honours, at which time the two soldiers may well have been on active service. Whatever may have been the position of these three, other soldiers recorded from the town were visitors or retired veterans choosing the enervating atmosphere of Bath in which to spend their declining years. Some of the soldiers died at an unnaturally early age, people such as Julius Vitalis, an armourer of the Legion XX *Valeria Victrix* recruited in Gallia Belgica, who died after only nine years' service, aged 29; and Gaius Murrius Modestus, of the Legion II *Adiutrix*, from Forum Julii, in southern France, who died aged 25. They must have been ailing from disease or wounds when they visited Bath, never to return to their legions. Vitalis belonged to a craft guild. When he died his members of the craft guild to which he belonged paid for his cremation and tombstone, carefully record-

¹²³ *CIL*, II: no. 2917; Rostovtzeff (1957): P1. XXV, 2; Jackson (1990a): 12–13; Baratte (1992): 43–54; Krug (1993): 180–181.

ing on it, ‘with funeral at the cost of the Guild of Armourers’. Even a young soldier could be assured of a decent burial if he belonged to a guild.¹²⁴

Other soldiers settled in Bath Spa after demobilization. Altar to the goddess Sulis was erected for Marcus Aufidius Maximus, a retired centurion of the Legion VI *Victrix*, by ‘his freedman.’ By this time he was probably a probably a prosperous local figure living in comfortable retirement. Another soldier, unnamed, probably settled in the north suburbs of the town, where he lost his bronze diploma issued to all soldiers on their retirement. He had served in a cavalry regiment, the *ala I Gallorum Proculeiana*, early in the second century CE and like all time-expired veterans was granted the right of citizenship after twenty-five years’ service. As a man in his mid-forties, he and possibly his family chose Bath as a congenial town in which to begin his new life, perhaps as a farmer, a craftsman or a merchant. Cunliffe assumes that there must have been many more like him living and working in the surrounding countryside. Another altar was dedicated by ‘the centurion in charge of this region’, Gaius Severius Emeritus, recording his act of piety in cleansing afresh the spot which was ‘wrecked by insolent hands’. He may have been a military administrator, perhaps responsible for a nearby imperial estate. The Roman settlement at Combe Down, near Bath, has produced an inscription recording a *principia* which is thought to refer to the headquarters of local procuratorial administration, and a lead seal found on the same site, stamped *P(rovinciae) Br(itanniae) S(uperioris)* shows that official parcels were passing through. It may be, according to Cunliffe, that Emeritus ran the establishment for a while.¹²⁵

Finds from several military baths as well as ordinary spas show that they were used by women as well as soldiers, although it is possible that there were set times for different groups. The Roman army also appears to have taken a keen interest in the development of baths at spas sites, such as Bath Spa (Aquae Sulis) in Britain. This complex was constructed relatively soon after the conquest of the area and it is likely that the legionary garrisons at other places in Western Europe and in the eastern Mediterranean basin were closely involved in its construction. The healing power of hot springs was highly valued by the Romans,

¹²⁴ Smith (1944): 17; Collingwood and Wright (1965): 139, 143–144, 146–147, 152, 156–160; Cunliffe (1995): 102–103.

¹²⁵ Cunliffe (1984): 187.

and almost certainly employed for aiding the recovery of the sick and wounded. One altar from Bath recording the reconstruction of a *locus religiosus* [= religious place] was set up by Gaius Severius Emeritus, the centurion charged with the administration of a region.¹²⁶

There is an overwhelming male representation in the inscriptions recovered from the spas in Italy. Out of 65 individual examples, only 8 dedications were made by women.¹²⁷ This is not surprising in a social world largely dominated by men.¹²⁸ But there is a definite presence of women which cannot go unnoticed according to the Greek and Latin authors. Thus, for instance, Seneca expresses strong opinions about the moral laxity of the resort at Baiae although he believes that there might be some benefits to be gained from the natural setting of the resort.¹²⁹ Martial offers valuable insight into the use of spas by the upper classes during the early Empire. He presents an image of the luxurious and, at times, infamous activities for which the resort was renowned. The formerly chaste Laevina often came for the *Baianis Aquis* and, as a result, succumbed to the temptations of the place. Furthermore, he encourages an unfaithful wife, Paula, to go alone to the baths of Aquae Sinuessanae for curing hysteria.¹³⁰ Some of Martial's friends are hoping for relaxation and pleasure, 'a difficult pursuit without abundant financial resources', due to Allen's remark.¹³¹ This, together with evidence of epigraphical inscriptions from Hammat-Gader and especially the frequent recommendations of Soranus to use mineral spring water to relieve gynecological disorders—reveal that women were among the regular visitors to spas.¹³²

The epigraphical documents from the thermo-mineral baths at Hammat-Gader reflect also the involvement of the military presence. Except for the small group of building inscriptions, most texts written by private persons open with the words 'Εν τῷ ἀγίῳ or (ιερῷ) τόπῳ μνησθῆ [= in this holy place may someone be remembered]. According to this term, the baths were viewed as a healing place endowed with

¹²⁶ Goldsworthy (2003): 107.

¹²⁷ Allen (1998): 155.

¹²⁸ See some of the fundamental studies on women in antiquity: Balsdon (1974); Pomeroy (1976); Fant and Lefkowitz (1992); Allason-Jones (2000); Fraschetti (2001).

¹²⁹ Seneca, *Epistulae Morales* 51.4; See also Wood (2004): 33–34.

¹³⁰ Martial, *Epigrammata* 1.62, 11.7; See also Howell (1980): 253–257.

¹³¹ Allen (1998): 129; See Martial, *Epigrammata* 3.20; 6.43.

¹³² Soranus, *Gynaecia* 1.56; 3.16; 3.28; 3.32; 3.38; 3.44.

a God-given power of restoring health.¹³³ (See, for instance, Figs. 16, 17, 18, and 20).

An inscription, which was placed in a prominent spot near the entrance, reads: 'In this holy place may Theosebius the *singularis* be remembered'. Under the Principate the *singulares* were among the selected soldiers second to the military *officia* of prefects, proconsuls and legates from units under their command in order to take care of the judicial and sometimes the financial affairs of their jurisdiction. In the Byzantine period the *singulares*—although still formally enrolled as soldiers and drawing rations as such—were in fact clerks in the sub-clerical branch of the civil service both in the military and the civil administration. Cases are known of retired members of the sub clerical grades who owned land and were wealthy enough to enroll a son in the *curia* of their town.¹³⁴ The same style occurs in another inscription in Area A, Hall of Inscriptions, indicates that 'In this holy place may Leontius the notary be remembered, (the son) of Droserius, *tribunus* of Damascus'. *Tribunus* was a military rank, denoting the commander of a regiment or any commanding officer. As the civil service was also organized as a *militia*, members of the corps of notaries could rise to the tribunate. Customarily service in the *militia* was passed on from father to son, and since Leontius was a notary, his father was probably a senior member of the same service.¹³⁵ There is an appeal to Christ in an inscription, surmounted by a palm leaf and a similar decoration closes the last line, which runs as follows: 'Christ, help Siricius the Gazean *magistranos*'. (See Fig. 16). The imperial couriers, *agentes in rebus*, were known by the term μαγιστριονοί, as they were closely attached to the *magister officiorum*. They formed a *militia palatina* and were organized as a cavalry regiment, starting as troopers (*equites*) and passing through the noncommissioned grades up to *ducenarius*. Soon they became important as confidential agents of the imperial government, especially the senior members of the corps, who were sent out to the provinces as inspectors of the post (*curiosi*). As such, they earned the reputation of government spies and were much hated by the provincials. Among the task of the *agentes in rebus* was also the control of maritime traffic.¹³⁶

¹³³ Di Segni (1997): 185, 253.

¹³⁴ Jones (1964): 563–566, 590–596; Di Segni (1997): 192, no. 3; On another *singularis* named Dominus, see *idem*, (1997): 212, no. 27.

¹³⁵ Jones (1964): 573–574, 640; Di Segni (1999): 207, no. 22.

¹³⁶ Jones (1964): 103–104, 128–129, 547–549, 578–581; Di Segni (1997): 210–211, no. 26; On another *agens in rebus* named Philogius, see *idem*, (1997): 214, no. 32.

In the centre of the pavement in The Hall of Inscriptions, there is an appeal to God and a title of ‘Zenon the patrician’: ‘God, he who created all things, help Zenon the patrician and his servant Alexander...’ The ancient title of *patricius* was revived by Constantine. One of the two distinguished Isaurian generals by the name of Zeno who held the consulate during the fifth and sixth centuries CE, and is very suitable in this case is Flavius Zeno. He was *magister militum per Orientem* between 447–451 CE, and achieved the patriciate on leaving his post in early 451 CE. Zeno retired under a shadow and held no other office under the new Emperor, Marcianus. Members of the aristocracy, who had become *persona non grata* at the Byzantine court, were often bundled off to Palestine. Thus in all likelihood Zeno came as a private citizen after his retirement, and his visit must be dated between 451 CE and his death in 457 CE.¹³⁷

In conclusion, although it is possible at many of these sites to make a good argument for the identification of a hospital, there is virtually no unequivocal evidence in any of them to prove the case. However, the presence of surgical instruments as evidence for the recognition of hospital buildings carries some weight. Unfortunately, we ought to wait for the forthcoming excavations at the curative sites in the eastern Mediterranean for verifying our assumption and point of view.

3.5 PUBLIC BATHS AND SPAS: THE ROMAN LEISURE CULTURE

In the Graeco-Roman world the properties of various kinds of water were held in great esteem. Hot springs and mineral contents were particularly appreciated. The main remedial sites attracted very large numbers of visitors. Medicinal spring water, like medicinal mud, was applied to painful areas of the body. Regular bathing and drinking of the water were practised routinely—many internal diseases were treated by drinking the water. In addition, people in antiquity regarded water in general, and that of medicinal baths in particular, as a source of enjoyment.¹³⁸

The practice of taking hot baths, which seems to us a typical Roman custom and necessitated the construction of the most grandiose build-

¹³⁷ Di Segni (1997): 218, no. 34.

¹³⁸ Jackson (1990a): 13; See also Pliny, *Naturalis Historia* 31.32.

ings in Rome, was another of the customs introduced into Italy from Greece towards the end of the third century BCE, the century which was the decisive age for penetration of Greek civilization into Italy. The Greeks developed bathing centres near natural springs and rivers. They encouraged bathing for physical health, recreation, and for relaxation and mental well-being. Water was prized as a health-giving gift from the gods. Bathing played an important role in the lives of ancient Greeks, and the Greek bath became an addendum to the gymnasium. The baths were used to prepare and stimulate the athletes before the games. Often the baths were quick and cold and sometimes followed by a warm bath after the athletic events. The Romans were greatly influenced by the Greeks, extending their belief of water's healing uses into their own culture. The Romans deserve the credit for combining the spiritual, social, and therapeutic values of bathing and exalting it to an art. In the warm Roman climate, *thermae* were a welcome part of the day; going to the baths became a social pleasure. Baths were the focus of communal life, offering a place for relaxation, social gathering, and worship.¹³⁹

Bathing was a recreational activity enjoyed by people of all ages, sexes, and social classes. The wealthy might have bathing facilities in their own homes, but most people used public establishments which were operated either by the state or by a private, profit-making company. So popular were these baths that throughout the Roman Empire, almost every town and every village had at least one public bath building and by the fourth century CE there were almost 856 public bath buildings in Rome alone. Baths and bathing provided a range of services far beyond simple hygiene. For the Romans bathing was an important ritual, a process which involved passing through a series of bathing areas maintained at different temperatures.¹⁴⁰

Much has been written of the luxuriousness of the baths, the bathing procedures, and other practices. The purpose of the classical Roman public bath installation was to cleanse the body by perspiration and washing, similar to the 'Turkish bath' or the sauna in later times. Baths

¹³⁹ Paoli (1958): 221; Licht (1963): 131–133; Aaland (1978): 28–32; Croutier (1992): 79–81; Ruoti, Morris and Cole (1997): 3; Nolte (2001): 5–7; Lee (2004): 39–43; For the transition from Greek to Roman preferences and methods of bathing, see mainly DeLaine (1989): 111–125; Nielsen (1985): 81–112.

¹⁴⁰ Shelton (1988): 311; Nolte (2001): 9; Goldsworthy (2003): 106.

demanded specialized techniques of building and engineering, the existence of an effective method of heating and a reliable and abundant water supply. The Roman bathing establishments varied considerably in their layout but in all of them the following essential elements are found: The building included an entrance hall, which served as a dressing room (*apodyterium*), from which one could enter a courtyard or exercise hall (*palaestra*), or directly into one of the sweating chambers (*sudatoria*). Sometimes a cold pool (*frigidarium*) preceded the sweating chamber, whose floor was elevated on brick pillars (*suspensurae*) that were 60–90 cm high. Hot air from a furnace (*furnarium*) circulated among the pillars under the floor, and also in the walls, which incorporated square vertical pipes with perforations (*tubulatio*). This ‘burning from below’ is therefore known as the hypocaust heating method. In the more sumptuous baths the floor and walls were lined with marble. From the sweating room, the bather proceeded to the tepid room (*tepidarium*) and thence to the hot room (*caldarium*), which was vaulted and had particularly thick walls, with washing tubs recessed into them. This was followed by a massage, and the exit was through the tepid and cold rooms.¹⁴¹ Externally the enormous quadrilateral was flanked by porticos full of shops and crowded with shopkeepers and their customers; inside it enclosed gardens and promenades, *stadium* and rest rooms, gymnasiums and rooms for massage, even libraries and museums. The baths in fact offered the Romans a microcosm of many of the things that make life attractive. Here the alliance between physical culture and intellectual curiosity became thoroughly Romanized.¹⁴²

When the plans of such installations are known, it is possible to reconstruct the bathing procedures and the methods employed by the architects to facilitate them. In Pompeii, for example, the rooms are arranged in one line next to the *palaestra*, whereas at Thamugadi (Timgad) in Libya, they are arranged in a circle and the first *sudatorium* is connected to the entrance hall and to the cold room. There were baths with twin installations arranged symmetrically. The twin installations not only offered facilities for more numerous bathers but also enabled men and women to bathe separately and simultaneously. Apart

¹⁴¹ Paoli (1958): 222–223; Guthrie (1960): 81; Weiss and Kemble (1962): 11; Gichon (1978): 37–38; Aaland (1978): 33–35; Henig (1983): 59–60; Grimal (1983): 68–69; DeLaine (1988); Nielsen (1990); Yegül (1992): 30–47, 92–127; Ring (1996): 717–724; Gizowska (1998): 9; Manderscheid (2000): 484–535; Nolte (2001): 8.

¹⁴² Carcopino (1991): 279–280.

from periods of extreme decadence, women usually bathed in separate locations or at special times. Emperor Hadrian decreed that women should use the baths in the hours of the morning ('until the seventh hour,' in Roman nomenclature), while the men should bathe in the afternoon until darkness. When men and women did bathe together in the public baths, they were naked. The custom of joint bathing by men and women, which was prevalent in the first to third centuries CE, was abolished by Hadrian. The fact that in the following generation Marcus Aurelius again had to forbid the practice, as did Alexander Severus in the third century CE, testifies both to the prevalence of the phenomenon and the scandals which it engendered.¹⁴³

The method of bathing naturally varied according to taste, age and health, but the object was always to alternate hot and cold baths. A cold bath, whether simply washing or swimming and diving in the *piscinae natatoriae*, was only taken when the body was heated and the pores open from the hot bath, a longer or shorter stay in the *laconicum* or a vigorous game in the *sphaeristerium*. Less energetic people took a long sun bath (*apricatio*) before entering the cold water.¹⁴⁴

The sphere of Roman manners with baths and bathing had connection with sexual life. Ovid, The most elegant and productive of Roman poets, observes:¹⁴⁵

What is the use of guarding women?... When, even although the girl's guardian keeps her clothes in safety outside the baths, hidden lovers lurk safe within?

Kiefer believes that this shows that assignations with lovers must frequently have been made in one or other of the baths. He adds that this took place, not in the great baths of later times, but in smaller establishments built or rented by private individuals, who managed them and charged visitors a small sum.¹⁴⁶ According to Martial there must have been special baths for prostitutes, which were visited by no respectable women. They must have been visited by men, wishing not so much to bathe as to have a convenient opportunity of visiting their mistress.¹⁴⁷

¹⁴³ Carcopino (1991): 293–304; Cowell (1973): 144–147; Balsdon (1969): 26–32; Dilke (1975); Howell (1980): 157–158, 307–308; Dvorjatski (1992a): 43–45; Croutier (1992): 85–86; Guhl and Koner (1994): 395–406; Williams (1999): 69–70; Nolte (2001): 9.

¹⁴⁴ Paoli (1958): 224.

¹⁴⁵ Ovid, *Ars Amatoria* 3.633–634; See also Hazel (2002): 217–219.

¹⁴⁶ Kiefer (1994): 161.

¹⁴⁷ Martial, *Epigrammata* 11.47.

Every time a Roman went to the baths he further endangered his sex life. Most men went there every day. Unfortunately, hot baths appear to have the effect of reducing fertility by inhibiting sperm production. The normal temperature of the testicles is lower than that of the rest of the body (37°C or 98.4°F). The Roman *caldarium* appears to have maintained a temperature of something in the region of 43°C or 110°F.¹⁴⁸

The difference between conventional baths and therapeutic baths can be seen in the architecture and the technical fixtures involved with heating. The thermal baths did not follow the normal pattern of water management. The conventional functional elements, particularly the *caldarium* and the hypocaust, are not to be found in medicinal hot baths. Therapeutic baths often had, in addition to the *piscinae*, which were operated with thermal water, a conventional bathing section. Manderscheid assumes that since thermal baths were usually located outside cities, accommodations for housing and feeding patients must have been furnished. According to him, since the relative temperatures of the springs vary considerably between circa 26°C and circa 70°C, there must have been some provision for cooling the water down to a temperature which was beneficial or perhaps comfortable to the human body. Indeed, in only a very few cases would the water have 'automatically' cooled off sufficiently on its way from the source to the bathing pools. The archaeological evidence reveals two possibilities; first, an installation of cooling basins into which the water would flow before being introduced into the *piscinae* (Baden-Baden). Secondly, the mixing of hot thermal water with fresh water (Fordongianus), which must have been transported separately over a relatively long distance by means of an aqueduct for this and other purposes.¹⁴⁹

The primary consumers of fresh water in the healing baths were as follows: the mixing system for cooling off water which was too hot; a fountain for drinking water; the facilities of the conventional bath wing, that is to say, the cold *piscinae*, the boiler installation for the *caldarium* pool, and the latrine; overall cleaning of the complex; the food and lodging accommodations for the patients, in which water was needed for drinking, food preparation, hygienic fixtures, and cleaning purposes.¹⁵⁰

¹⁴⁸ Tannahill (1980): 132–133.

¹⁴⁹ Manderscheid (2000): 511–513; See also Garbrecht and Manderscheid (1994): I: 83–87; Czysz (1994): 115–117; Romanelli (1970): 170.

¹⁵⁰ Manderscheid (2000): 513.

The thermal bath installations at Hammat-Gader near the famous *polis* Gadara of the Decapolis, which were renowned throughout the Roman world, constitute a very distinct complex. With its wide lavish halls and spacious pools, it resembles the large *thermae* of the Roman Empire and in particular the famous installations at Aquae Sulis (Bath Spa).¹⁵¹ The uncovered hypocaust of the main *tepidarium* and the *caldarium* in Bath, for instance, might demonstrate that alterations have been added to the facilities of the complex according to the demand of the citizens or the municipal council's determination.

Apart from frequenting the forum and the temples, the Romans liked to spend their time at the baths and at public places of entertainment, which formed the basis of the Roman leisure culture. In place of the former sport education in the Greek gymnasium, and immersion in modest baths, the Romans deliberately promoted bathing. They turned it into the dominant, or even the sole, form of body care. The main merits of the baths for the Romans lay in prompt enjoyment and self indulgence, bordering on exaggeration and vanity, to which was added a modicum of social intercourse. All citizens, and not only the wealthy, frequented the baths. The bathers either brought slaves with them to carry their towels, to scrape, and to rub them down, or they hired such services at the baths where there were also masseurs, anointers, depilators and perfumers. The poor, who could afford none of these attentions, rubbed and scraped themselves by hand or against a wall. The places served also for the display of works of art. Famous statues often adorned the edifices, which were themselves richly decorated. In the adjacent buildings and *stoas*, lectures and poetry readings took place; and philosophers held their discussions there in the certain knowledge that a large audience would come to listen.¹⁵²

It should be noted that in the Greek literature and in the writings of the Jewish Sages, the projects undertaken by the Roman Empire, including its baths, have been subjected to numerous and diverse evaluations—both complimentary and critical. The Romans themselves denigrated their baths. They were well aware that beneath the tall *stoas* there

¹⁵¹ Tsafrir (1984): 110; Dvorjetski (1988): 135–136; idem, (1997): 472; For Bath Spa complex, see, for example, Cunliffe (1995); Yegül (1992): 117–119.

¹⁵² Carcopino (1991): 277–286; Cowell (1961): 144–147; Balsdon (1969): 26–32; Tsafrir (1984): 110; Dunbabin (1989): 6–15.

teemed peddlers and pimps, and that many people were frequenting the site in order to gorge, to guzzle and to debauch themselves.¹⁵³

Yegül sums up the variety of bathing choices provided for a visitor at *Aquae Sulis* bath complex, which can be a model for spas during the height of the Roman Empire:¹⁵⁴

Entering the complex from the northwest and southwest, he could take a regular hot bath in the *tepidarium* and the *caldarium* and finish his ablutions, as accustomed, in the *frigidarium*, a square room with a round pool of fresh, unheated water. Alternatively, he could spend some time in the circular *laconicum* before taking the cold plunge; or he could omit the artificially heated baths altogether and go for a treatment in the hot and tepid thermal pools of the Great Bath or the Lucas Bath. As yet another option he could combine the two modes of bathing, regular and thermal, in any order he pleased or as his doctor recommended. During the third period, a pair of small, tepid chambers built to the west of the *laconicum* may have served for the individual treatment of patients. Although the entire complex seems to have been supplied copiously with hot mineral water, it is likely that fresh, cold water was also piped into the establishment.

Yegül has identified three stages of development of thermo-mineral sites: a simple pool with very few architectural features fed by a spring; a more elaborate structure with a central pool-hall as its focus; and an integrated building which had both natural and artificially heated elements. He suggests that a site might either progress through each stage or remain at a particular phase of development. In any case, the terminology established for ordinary bathing is often not appropriate for describing spa facilities.¹⁵⁵ A large pool hall, which contained a pool for thermo-mineral water, is a very significant feature of a spa site. The large dimensions of the main pool halls highlight the importance thermo-mineral bathing had for therapeutic measures. The most common form for these pools is either rectangular or apsidal, but round pools offered a variation on the traditional shape. While not all spa establishments have clear evidence for sweating rooms dependent on natural hot springs, it is clear, according to Allen, that their use formed part of the therapy expected to be available at one of these centres.

¹⁵³ Hahn (1906); Carcopino (1939): 293–304; Fuchs (1964); Friedländer (1964): 318–320; Herr (1970): 95–108; Dunbabin (1989): 6–46.

¹⁵⁴ Yegül (1992): 110–111, 117–119.

¹⁵⁵ Rebuffat (1991): 1–32; Allen (1998): 74–75.

In addition to bathing facilities, which made use of naturally heated spring water, a number of spas also had artificially heated rooms. These rooms are sometimes later additions to the original core of the structure and functioned alongside the already-present thermal baths. There are examples of large artificially heated pools—Vignale Baths at Velia, Suburban Baths at Herculaneum, Small Baths in Villa Adriana at Tivoli, Babni di Nerone at Massiciuccoli (near Pisa) in Italy and Bath Spa in Britain—but there are, on the whole, rather rare and tend to be restricted to luxurious establishments. As the focus of the spas was on the resources of the thermo-mineral springs, the main aim of the design was to create access to the waters. This led to an architectural type that can clearly be seen as related to normal bath buildings, but with variations as necessary.¹⁵⁶

Healing spas formed an important component of health and hygiene in the Roman world. Spas provided a new method for improving health which combined the comforts of the bath with innovative treatments based on rational and logical medicine. The treatments found in spas were aimed at specific needs and focused especially on thermo-mineral springs. At a spa a visitor could partake of the restorative measures available by bathing in or drinking the waters of a spring. A belief in the effectiveness of the water lay at the centre of the use of thermo-mineral springs for healing. Although there was an undercurrent of religious belief at spas, the main healing activity focused on what was considered to be a rational use of the thermo-mineral waters. Information concerning the staffing of a spa is sadly lacking in the literary record. It is likely that the non-medical staffing needs of a spa were similar to those of an ordinary bath. Although there is little in the evidence to confirm it, there must have been doctors or attendants in the establishments who could treat clients at the spas.¹⁵⁷

In conclusion it is important to point out that the testimony offered by the numerous dedicatory inscriptions, frequent recommendations by medical writers and non-specialists, and the existence of many thermo-mineral establishments throughout the Graeco-Roman world provide an unequivocal demonstration of the important role spas had in antiquity.

¹⁵⁶ Allen (1998): 56–67, 74–75–81; Nielsen (1990): II: 7, Cat. no. 39, 52; 9: Cat. no. 55; 10, Cat. no. 61; See also Grenier (1960): 409—for Amelie-les-Bains.

¹⁵⁷ Allen (1998): 1, 45, 205.

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