



HEARTBLOOD

From Life Source to Lubricant

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Resumo:

Antes do estabelecimento da modernidade, o mundo científico via que o coração havia sido pensado para ser a origem do sangue impregnado com espírito. O coração servia como uma circunscrição do centro da vida, complexo de corrente sanguínea que hoje nós chamamos de corpo. Nem o sangue parental nem o sangue de Cristo pertenceram a um único corpo; eles deram vida a um tecido social unido pela mesma visão de mundo. A emanção de sangue da ferida do coração crucificado forneceu um agente abundante obrigatório e um cimento social, e até mesmo um suco reprodutivo para o corpo social Cristão. No século XVII, a ciência definiu o coração como uma bomba. Deste momento em diante, os órgãos internos foram conectados pela função, e não mais pelo contexto comum do significado previamente fornecido pelo sangue. No período moderno, os indivíduos se deparariam com o outro como circuitos fechados retendo seus líquidos do corpo e sua vida interna. As mudanças no significado experimentadas pela metamorfose do sangue e do coração no período moderno refletem o processo de diferenciação, atraindo uma busca por um centro de significados ambos em um nível político e pessoal.

Palavras-chave: Símbolismo do sangue, sangue cristão, Cristianismo, coração

Abstract:

Before the establishment of the modern, scientific world view the heart was thought to be the origin of the blood that it impregnated with spirit. The heart served as a circumscription of the center of the living, blood-streamed complex that today we call the body. Neither parental blood nor Christ's blood belonged to one single body; they gave life to a social fabric united by the same worldview. The blood emanating from the crucified's heart wound provided an abundant binding agent and a social cement, and even a reproductive juice for the Christian social body. In the 17th century, science defined the heart as a pump. From this moment on, the internal organs were connected by function, and no longer by the common background of meaning previously provided

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by blood. In the modern period, individuals would encounter one another as closed circuits withholding their body liquids and their inward life. The shifts in meaning experienced by metaphors of blood and heart in the modern period mirror the processes of differentiation, eliciting a search for a center of meaning both on a political and a personal level.

Key words: Blood's symbol, Christ's blood, Christian, Heart

On May 3rd, 1379, the mystic Catherine of Siena recited a prayer roughly as follows:

Eternal Father, be generous to those who you see standing at the gates of your truth and beg. What do they beg for? The blood of these gates (...) It is our blood, for you have prepared a bath from it [. . .] So offer your creatures the fruit of your blood!²

In one of her visions, young Catherine had drunk Jesus' blood from his heart wound³. Yet in the 21st century, the idea of a revitalizing blood bath seems rather off-putting. Blood is a body liquid not to be touched and to be handled with utmost restraint. Catherine, the late medieval blood mystic, not only had a different world view, she also had a different view of the body.

Ever since the first century A.D. the human body had served as a model for the community of Christians, which was conceived of as a living being. The apostle Paul likened the Church to Christ's torso and limbs, while referring to the Redeemer himself as the head⁴. In Catherine of Siena's time, the blood emanating from the crucified's heart wound did not result in weakness, it rather provided an abundant binding agent and a social cement, and even a reproductive juice for the Christian social body. Whoever was embraced by this body was bathing in blood. An endless stream of blood gushed from

² CATERINA VON SIENA 1980, p. 152

³ CAFFARINI 2001, p. 122

⁴ On the Pauline metaphors, cf. NIEDERWIMMER 1975





Christ's wounded heart, infusing a common spirit into drinkers and bathers, uniting them into a community.

This body model of Latin Christianity had a lasting effect on conceptions of social forms and bonds in Christian Europe. Before the establishment of the modern, scientific world view the heart served as a circumscription of the center of the living, blood-streamed complex that today we call the body. Neither Christ's blood nor parental blood belonged to one single body; they gave life to a social fabric united by the same worldview. In the 17th century, science defined the heart as a pump which, metaphorically speaking, drove the state machinery. Both the internal organs and the individual bodies were being separated from the blood stream. From this moment on, they were connected by function, and no longer by the common background of meaning previously provided by blood. More than others, the 17th century is considered the period of melancholic reactions to the demise of the ancient Christian cosmos, and it is also the century of the heart, into which the sources of meaning, that which moved and created bonds, had retired.

In the modern period, individuals would encounter one another as closed circuits withholding their body liquids and their inward life. The hearts remain by themselves, and heart blood becomes infinitely precious and intimate. From this perspective, the shifts in meaning experienced by metaphors of blood and heart in the modern period mirror the processes of differentiation, eliciting a search for a center of meaning both on a political and a personal level.

1. Heart and blood in pre-modern European societies





According to Aristotle⁵, the heart generates blood from nutritional juices, and through its heat causes it to steam⁶, producing pneuma⁷. Medieval and early modern doctors also thought the heart to be the origin of the life force⁸; sperm, they believed, was derived from heart blood, it was the “marrow and flower of life”⁹ designed to reproduce life¹⁰. Consequently, breast milk, too, was considered refined blood, with menstruation blood being the impure variant to be excreted. The heart, with its abundance of blood, had procreational and nutritional qualities¹¹.

Although the Christian theologians based their thinking on Aristotle, they followed the Bible in considering the heart the seat of the soul¹². The early Christian believers were “of one heart and mind”, as the Acts (4, 32) state¹³. References to a “circumcision of the heart”¹⁴ (Lev 26, 41; Dtn 10, 16 and 30,6; Jer 9,24f.) indicated that the heart had to be

⁵ ARISTOTLE 159a, p. 100-108 (= book 3, 3-4). Aristotle 1959b, p. 103 (= book II,5)

⁶ RÜSCHE 1930, p. 222

⁷ RÜSCHE 1930, p. 229

⁸ RÜSCHE 1930, p. 221 ff., Aristotle 1959b, p. 54 (=book I, 19)

⁹ CAMPORESI 1995, p. 84

¹⁰ VONESSEN 1969, pp. 9-52

¹¹ In the imaginary of antique medieval cultures, the heart and the genital organs seem closely related to each other. Sexual intercourse was circumscribed as “elevation of the heart”. – Seibert 1973, pp. 36-44.

¹² Aristotle only locates the sensual soul and perception near the heart, while the divine *nous* as not assigned to any place in the body. Cf. MICHEL 1971, p. 127.

¹³ Cf. also GUILLAUMONT 1950, p. 51.

¹⁴ The Prophets had transferred circumcision to the invisible heart. „For the sake of the LORD, be circumcised, remove the foreskins of your hearts, O men of Judah and citizens of Jerusalem“, warned Jeremiah (4,4). Individual will, represented by the disobedient member, was supposed to be sacrificed to God. Further uses of „circumcision“ in this meaning: Lev 26, 41; Dtn 10,16 and 30,6; Jer 9,24.





wounded by God in order to become receptive to his words¹⁵. The blood of the heart and the semen of the words were blended. The early Christian communities established themselves through the law written on “tablets that are hearts of flesh” (2 Cor 3,3). Hearts pierced by God’s amorous arrows – the first such heart was Aurelius Augustinus¹⁶ promised spiritual fertility. A grapevine grew out of Christ’s heart wound like a family tree of Christianity¹⁷; the blood of its grapes turned those who drank it into brothers and sisters.

Unlike real bonds of blood, the blood of Christ begets all Christians without sexual intercourse. In the Christian social body, fertility and family bonds moved to a supra-sexual or a-sexual level, migrating from the genitals to the heart. Medieval philosophers and theoreticians of state applied this notion of a common body of Christians to ideas of the state¹⁸. This bodily model was particularly suited to provide power relationships with the semblance of a natural, i.e. God-given context¹⁹. In these conceptions, Christ’s blood was the carrier of souls that streamed through all parts of the body, irrespective of their rank, for blood binds the body parts to one another and the entire organism to its environment. It may transcend the boundaries of the body by emanating from body openings. Consequently, blood was not an organ obeying to the hierarchical order of the

¹⁵ Cf. HERMAN 1961, p. 93.

¹⁶ Augustine (s.a.), p. 188 (= Confessions 9,2,3).

¹⁷ Cf. numerous representations of *Andachtsbilder* (devotional images) and artworks in KRETZENBACHER 1997.

¹⁸ Cf. KANTOROWICZ 1990.

¹⁹ Cf. DOUGLAS’ (1970) anthropological perspective on this matter. Cf. also numerous examples of the use of organic notions of state in antiquity in NESTLE 1948.





body – it could be on top or on the bottom, inside or outside, it could assume solid, liquid, and even vaporous states²⁰.

In the organological state theories of the Middle Ages, the king was most commonly identified with the head, whereas the priest tended to be associated with the heart, as this was the assumed location of the soul, governed by God²¹. In *Policraticus*²², John of Salisbury's (approx. 1115-1180) work on state theory, the king is considered the head, his council the heart, and the tax collectors the stomach and the guts²³, the latter being the places where, according to medical scholarship of the period, blood was elaborated from the nutritional juices in order to then be heated by the heart and mixed with pneuma²⁴. According to John of Salisbury, the clergy constituted the soul governing the whole of the body, without being concentrated in a particular organ. Salisbury did not mention blood at all.

As the regard granted to each individual organ would depend on an organ's spiritual character, the heart, impregnating the blood with spirit²⁵, occupied the most important position in theories of state whenever the ability to establish unity was concerned. In *Defensor Pacis*, Marsilius of Padua (1279-1340), for instance, considered the ruler as the heart, through which the soul and its formative powers could become

²⁰ Cf. the idea of contagious blood vapors in FICINO 1956, p. 246. (= 7^o discours/chap. IV).

²¹ STRUVE 1978, p. 102. ARCHAMBAULT 1967, pp. 21-53, here p. 31 also states that in treatises on the state the soul should guide the prince.

²² JOHN OF SALISBURY was a student of Peter Abelard and later became the Archbishop of Chartres.

²³ JOHN OF SALISBURY (1990), p. 66f. (=book V, 2).

²⁴ Galen believed that the liver kept reproducing blood from the nutritional juices, and that the blood never flowed back from the periphery. Cf. SIEGEL (1968), pp. 83-87.

²⁵ Occidental philosophy ultimately equates the spirit and the pneuma, while medics identify it as the principle of movement in the brain, the heart, or the blood. – PUTSCHER 1973, p. 21





effective in the body²⁶. However, whenever the vertical hierarchy of command was at the center of theoretical consideration, then organological perspectives would privilege the head²⁷.

Both in profane medieval love poetry and in mystical literature the heart would represent the whole personality and express his/her openness, receptiveness and bonding potential. Only a wounded, soft heart was able to love and to establish bonds with its blood. Ideas such as this can be found even in present-day love literature, where blood and love continue to be closely connected. The loving heart bleeds, it is given away, lost or stolen, broken or even eaten²⁸. The beloved man or woman, the object of love, is often called "heart of mine". A heart could be a tabernacle and contain the Blessed Sacrament²⁹, or it could be a den of thieves. In the 17th century, blood and mind (German *Gebüt* and *Gemüt*) were considered as so closely connected that overly heated blood could lead to passion and even rages of love or anger, both of which were considered to be dwelling in the heart³⁰.

On a religious level, the veneration of the wounds of Christ had for several centuries been paving the way for the cult of the Sacred Heart³¹. On meditation pictures and prayer templates the Redeemer's body parts with their bleeding wounds were arranged around the heart, resulting in an image of a large scheme of economy of

²⁶ STRUVE 1978, pp. 263-275.

²⁷ Cf. POUCHELLE 1990, p. 120.

²⁸ Cf. ERTZDORFF 1965; also RÜDIGER 1969.

²⁹ Friedrich Schlegel "opens the Blessed Sacrament of his heart" for Friedrich von Hardenberg. Cited from UNGER 1937-39, p. 91.

³⁰ Cf. Schottel 1980, pp. 129-141.

³¹ Cf. the summary in CORETH 1994, pp. 13-22.





salvation: pierced hands, pierced feet, torture instruments, and in the center the heart with its wound, shedding the desired blood like a well. Yet the individual limbs of the crucified promised a resurrection and recomposition of a complete and sound body.

Why is it that around 1700 the heart wound replaced all other sources of blood?³² Why did the heart even replace the body? It must be assumed that this body lost its “sound” shape in the 17th century.

2. The fragmented body

As the bodies of communicating people became increasingly impenetrable in the early modern period, the heart came to be thought of as a sealed inner space. Contract partners increasingly began to rely on seals and texts instead of gestures and rituals. The increasing use of money and letters for everyday affairs set people and goods into motion. Outside of their traditional embedding and without rituals they would encounter one another as strangers and distrust one another. These transformations became clearly apparent after the 16th century, when the modern world system, as Immanuel Wallerstein³³ calls the capitalist trade networks, began to emerge.

In the age of confessional wars and economic crises, when the profit economy began to establish itself in Europe, fears of demonic seduction and diabolical insinuations became widespread in all realms of society. Like God, the Antichrist could settle in the heart if allowed to do so, for instance in a pact that had to be sealed with blood, the carrier of the soul. This was a commercial transaction, for the undersigned usually sold his or her soul, his or her status as child of God in return for earthly riches; the sensory and

³² Cf. STEVENS 1997.

³³ WALLERSTEIN 1980.





meaningful blood bond was traded against material and worldly benefit and entanglement. Like Jesus, the prince of darkness expanded his community with the help of blood, which he stole instead of giving. The witches, his helpers, supplied the blood of unbaptized children for his orgiastic meals. In the form of *succubi*, demons stole the semen of lecherous men, and as *incubi* they begot devils' children with impure women. However, the devil made use of blood's power to dissolve established social bonds, severing it from its social meaning. Hell was represented as a monster with a gaping throat through which one passed into its womb. There, at the center of evil (no heart of hell is documented), was the devil's kitchen with its vessels full of boiling human blood³⁴. This bad, awful sinners' blood provided an image of dissolution and of anti-social attitudes. Hell was the receiver of the offal, the excrements, and the foul juices of the Christian social body, which cleansed itself in this fashion. According to medical ideas accepted up until the 19th century, blood was an agent of physical cleansing in bloodletting³⁵, and of expiation in bodily punishment and mortification³⁶.

In order to protect themselves against temptations, Christians were therefore obliged to defend their hearts against intruders, and to keep them locked in order to prevent them from being scathed by worldly things³⁷. Inwardness developed inside the heart's hollow muscle, and it was the heart with its incessant beat that became the image of inwardness. The heart's little chamber, so it was believed, harbored the essence of a person, his/her innermost nature and secrets, both good and evil. Techniques of heart-

³⁴ Cf. BUTTERWORTH 1992, p. 87.

³⁵ Cf. SCHARFBILLIG 1933. Theories of bloodletting enjoy support to this day. In the 19th century, bloodletting was still taught at universities.

³⁶ Cf. ANGENENDT 1997.

³⁷ Cf. BAUER 1973, p. 176.





searching, torture and bloodletting were geared to reveal the heart's secrets³⁸. Truth was searched for in the blood of the mortified, the tortured, and the purged, i.e. in injured and opened bodies. Blood expiated evil deeds, blood made people confess their evil secrets, and blood freed them from evil juices.

In 1673, a common Salesian nun received an inspiration from Jesus' bleeding heart. Sure enough, Marguerite-Marie Alacoque (1647-1690) was not the first and not the only one to lead conversations of the heart with Jesus³⁹. What was new was the Jesus himself, according to his words in Marguerite-Marie's vision, desired the spread of the veneration of the heart. As a consequence, Jesuit padres developed a cult that they eagerly propagated in the 18th century. To the extent that early modern Christian phantasies of globalization⁴⁰ seemed to become possible and the Christian teachings could be spread over the entire globe, Christ's body became reduced to one single organ that served as a symbol of wholeness. It was no longer the order of his limbs that was essential, but its central blood well, which would secure a context of meaning. This new appreciation of the heart became manifest in funeral rituals. Ever since the Middle Ages, burying the hearts and the bodies of people with royal blood at separate locations was practiced only occasionally. In the 17th century, the frequency of such funerals increased in particular in catholic dynasties⁴¹. Depending on the wishes of the deceased, the hearts were often buried on selected locations of grace, while the rest of the body was usually buried in the family tomb, in keeping with the tradition. This practice was expressive of a differentiation between external obedience and the inner, spiritual bond of hearts.

³⁸ Cf. MOOS 1997.

³⁹ For a historical summary cf. RICHSTÄTTER 1924.

⁴⁰ On the appearance of the first "world histories" in the 17th century, cf. KLEMPPT 1960.

⁴¹ MICHEL 1971.





The Jesuits' enterprise became a resounding success. The pierced heart is even a standard symbol in today's computer programs, and may rightfully be called one of the most consistent and consequential logos of the second millennium. While the miraculously bleeding hosts of the Middle Ages were supposed to prove God's incarnation, Christ's bleeding heart, in which the entire history of redemption was concentrated, secured the living communality of Christianity which had been unsettled following the religious wars of the 17th century. The heart represented a counterbalance against the functional dissection of the life world by profit seeking, and the dissection of bodies through anatomy⁴². As the origin of movement and life, the heart had to be the source of life's meaning and contain the ultimate foundation. Hence Blaise Pascal's (1623-1662) complaint about people who run after the wrong life objectives: "How hollow and full of ribaldry is the heart of man!"⁴³.

Only a heart purified from worldly distractions can bestow meaning. " ... *meines Hertzens schrein Ists allerheiligste/ wann er ist leer und rein*"⁴⁴, wrote Johannes Scheffler (1624-1677). Theologians recommended an inner heart prayer for recollection in case the mind had been distracted by the toughest challenges, "les distractions les plus crucifiantes"⁴⁵. The heart was meant to be the abode of inward collection, the spiritual center of the individual crucified in the world.

⁴² Cf. SAWDAY 1996.

⁴³ PASCAL, 1938, p. 82. "Que le coeur de l'homme est creux et plein d'ordure!" (Divertissement 131). Transl.: <http://en.wikisource.org/wiki/Pensées/II>.

⁴⁴ ANGELUS SILESIUS 1984, p. 129 (= book 3, 113). "My heart's shrine is most sacred/ when it is empty and pure". Transl. W.S.

⁴⁵ PINY 1683.





However, the history of the world and the history of redemption went separate ways⁴⁶ when reason of state elevated economic requirements above the commandments of Christian morality. When believers – and, by then, non-believers as well – had to divide themselves into inner beings on one hand, and rational, outward beings on the other, the heart was supposed to help bridge the resulting contradictions. The Roman medic Galen (approx. 129-199), whose teachings dominated medical scholarship up until the 17th century, had placed the head over the heart as the chief decision maker⁴⁷.

Nevertheless, in a treatise on melancholy describing the interaction of the organs of the human body in political terms, Robert Burton (1577-1640), an expert of Galenic teachings, describes the king as the heart, and his council and chancellor as the brain of the state body.

[the] brain itself, which by his nerves gives sense and motion to the rest, and is (as it were) a Privy Counsellor, and Chancellor, to the Heart. The second region is the chest, or middle belly, in which the Heart as King keeps his Court, and by his arteries communicates life to the whole body⁴⁸.

The bureaucracy, whose power had increased considerably in early modern states, was in charge of rational decisions, but maintained its connection to life through heart and blood.

After the inner organization of the body has been exposed in anatomy lecture theaters, the body became yet again a model expressing the mechanical and seemingly natural processes of the state body. As physics was considered a natural science, no

⁴⁶ Cf. KEMPT 1960.

⁴⁷ Cf. PUTSCHER 1973, pp. 11-16.

⁴⁸ BURTON 1923, p. 172.





distinction between natural and technical processes was required at first⁴⁹. Both the state and the body seemed to be living machines driven by a mysterious power. Following medical science's discovery that the heart was the moving agent of blood, the heart once again came to be considered an ideal connecting part between the visible, physical, and the abstract worlds. The soul, or at least some mental powers, were still considered to be located in the blood⁵⁰, so that the heart, with its god-given pumping action, seemed to establish a living relationship. Even William Harvey, whose writings on blood circulation in 1628 were dedicated to the English king Charles I (1600-1649), compared the king to the sun – as John of Salisbury had done before him⁵¹ equating the microcosm (body or state) with the macrocosm (the planetary system) in order to render homage to the cosmic order. According to Harvey,

The animal's heart is the basis of its life, its chief member, the sun of its microcosm; on the heart all its activity depends, from the heart all its liveliness and strength arise. Equally is the king the basis of his kingdoms, the sun of his microcosm, the heart of the state;⁵²

In another passage, he refers to the heart as domestic altar that warms the blood, impregnating it with spirit⁵³. Harvey understood the bond with the sovereign not as a functional one, but continued to think of it as cosmically predetermined. His stoic ideas of a kinship between the microcosm of bodily fluids and the macrocosmic movements of celestial bodies served for the reconstruction of a universal context during the baroque

⁴⁹ On the reduction of the organic to mechanics for instance in the 17th and 18th century cf. Meyer 1969, pp. 129-134.

⁵⁰ Cf. HENRY 1989.

⁵¹ JOHN OF SALISBURY 1990, p. 140 (= book VI, 26).

⁵² HARVEY 1957, p. 3.

⁵³ “. . . unde ad principum, videlicet cor, tanquam ad fontem sive ad lares corporis, perfectionis recuperandae causa, revertitur: ibi calore naturali, potenti, fervido, tanquam vitae thesauro, denuo colliquatur, spiritibus et (ut ita dicam) balsamo praegnans; . . . “ HARVEY 1957, p. 165. The altar was also considered the heart of the church. Cf. SAUER 1902, p. 156.





period. According to such notions, planetary powers still unified the disintegrating Christian cosmos into one whole, just like the blood united the body. In line with stoic thought, theories of bloodletting as well astrology, which enjoyed great esteem in that period, established analogies between the heart and the sun, underlining former's radiating qualities.

Approximately one century after Harvey, the German cameralist Johann Heinrich Gottlob von Justi (1717-1771) only mentions blood one single time in his treatise *Natur und Wesen der Staaten*. He thought it necessary for the ruler to risk his blood and life for his subjects, and for the subjects "to sacrifice their possessions, their blood and their life for the defense of their ruler and the state, on account of the close bond that exists between them and their ruler"⁵⁴.

As long as the ruler did not exhaust his subjects, so Justi believed, blood and blood sacrifices, i.e. a mutual readiness of sacrifice between the prince and the subjects, established firm bonds. He thought it natural to include goods into this economy of juices. The German words for blood and good (*Blut* and *Gut*) are phonetically similar, and to Justi they both expressed something mobile, they both came from the heart and they both were capable of establishing social bonds because of the duty of reciprocity. One-sided taking without giving – as in tyranny and idleness – were considered threats to the order of the state.

In the "long 17th century"⁵⁵, the importance of economic issues had clearly increased. While around 1330, according to Marsilius of Padua (who still compared the prince to the heart), merchants were simply responsible for bringing together all the vital

⁵⁴ JUSTI 1760, p. 226. Transl. W. S.

⁵⁵ Cf. WALLERSTEIN (1980), *The Modern World System II*, where the 17th century lasts from approx. 1550 to 1750.





goods in a state⁵⁶, the 16th century Paris theologian Johannes Michaelis, while also referring to the king as heart, viewed the merchants as the state's blood vessels, distributing the nutritional substances⁵⁷. In the 17th century, Thomas Hobbes, too, likened the mobility of goods, increased through monetary payments, to the nourishing circulation of blood⁵⁸. In 1692 John Locke, seized by a European passion for mechanical constructs, defined "the Current of Money" as the fuel of the various commercial wheels within the state⁵⁹. Theoreticians of state took up the scientific discoveries of their respective periods and applied them to social structures – a circumstance lamented by Karl Marx, in whose view organological metaphors had been used since antiquity in order to obscure the conflict of classes⁶⁰. After all, money transported the goods not to every single part of the social body. In periods of famine, for example, the management of cereals made it clearly evident that flows of money brought bread only to the rich. Moreover, minced money flowed far beyond the borders of the state, benefiting other owners as well. Nevertheless, the first economists thought of the state body as a closed unit, driven by the inner circulation of money. Harvey had identified the body's blood circulation as a closed system, whose volume of blood, according to his calculations, was relatively limited. For this reason, mercantilists and cameralists recommended measures suited to prevent the "drainage" of precious metals abroad. By contrast, the physiocrats thought that it was not the quantity of available precious metals that vitalized and

⁵⁶ *Defensor Pacis* I,55,9. Cited from STRUVE 1978, p. 269.

⁵⁷ MICHAELIS 1564, pp. 40-42.

⁵⁸ HOBBS 1968, p. 300.

⁵⁹ LOCKE 1991, p. 224.

⁶⁰ MARX 1974, p. 80. Transl.: [Http://www.marxists.org/archive/marx/works/1857/grundrisse/ch03.htm](http://www.marxists.org/archive/marx/works/1857/grundrisse/ch03.htm) "To compare money with blood – the term circulation gave occasion for this – is about as correct as Menenius Agrippa's comparison between the patricians and the stomach. To compare money with language is not less erroneous . . ."





stabilized the economy, but the correct redistribution of produce. Before writing on economics, the physician François Quesnay (1694-1774) had published several treatises on bloodletting in which he went into details concerning blood circulation and its hydraulic relationship to the “economy” of the human body⁶¹. Even in the 18th century bloodletting was considered an important healing aid in removing impurities and combating stagnancy of blood⁶², and it was only in the cases of very weak persons that one refrained from applying it. One hundred years after Harvey’s discoveries, medics still considered the advantages of purges to outweigh the disadvantage of a weakening caused by blood loss, as it was the irregularities of blood movement that were held to be the main cause of diseases⁶³.

In Quesnay’s economic theory the system of exchange and the sequence of acts of consumption and production ensured the functioning of the state body. To Quesnay, a farmer’s son, the natural resources represented an eternal source of wealth. Having served the ladies of the court as a gynecologist⁶⁴ for years, he paid little attention to the meaning of the heart, focusing instead on the fertility of the soil and man’s dependence on his productivity. Fertility manifested itself as a regular bleeding on the one hand, and as regular yields of the soil on the other. The output of blood and yields was not supposed to experience any stagnation. Quesnay believed agricultural production to be the engine of the economic system. Bonds of the heart may have appeared as secondary vis-à-vis what he considered to be the causal connection of laws of nature, which is presumably

⁶¹ QUESNAY 1750, Ch. XVII.

⁶² QUESNAY 1750, p. 249.

⁶³ For example, it appears to be certain that Wolfgang Amadeus Mozart died primarily from blood loss caused by frequent bloodletting applied in treating an infectious disease. BÄR 1972, p. 40.

⁶⁴ LÜTHY 1959, pp. 8f.





why he was inspired more by the mechanics of a rolling ball clock than by blood circulation⁶⁵. Bernard de Mandeville (1670-1733), an English physician and writer, and contemporary of Quesnay, interpreted human relationships as dependencies. In his satirical *Fable of the Bees*⁶⁶, he construed personal vices as societal advantages. According to Mandeville, it is human desire that puts money and goods into motion and makes for the entity of the state. Mandeville argued that individual motivations generated and drove a social mechanism that could no longer be put down to human intentions⁶⁷ but followed the laws of physics, beyond any moral considerations. The heart no longer played any role, it no longer distributed a common spirit or common meaning, and world views had become individualized.

In 1755, Jean Jacques Rousseau uses organic metaphors in his treatise on political economy:

The body politic, taken individually, may be considered as an organized, living body, resembling that of man. The sovereign power represents the head; the laws and customs are the brain, the source of the nerves and seat of the understanding, will and senses, of which the Judges and Magistrates are the organs: commerce, industry, and agriculture are the mouth and stomach which prepare the common subsistence; the public income is the blood, which a prudent economy, in performing the functions of the heart, causes to distribute through the whole body nutriment and life . . .⁶⁸

⁶⁵ Cf. BÜRGIN 1996, pp. 351-356.

⁶⁶ MANDEVILLE 1988.

⁶⁷ Cf. DUMONT 1977, pp. 78f.

⁶⁸ ROUSSEAU 1964, p. 244. "Le corps politique pris individuellement, peut être considéré comme un corps organisé, vivant et semblable à celui de l'homme. Le pouvoir souverain représente la tête; les lois et les coutumes sont le cerveau, principe des nerfs et siège de l'entendement, de la volonté, et des sens, dont les juges et magistrats sont les organes; le commerce, l'industrie, et l'agriculture, sont la bouche et l'estomac qui préparent la subsistence commune; les finances publiques sont le sang qu'une sage économie, en faisant les fonctions du coeur, renvoie distribuer par tout le corps la nourriture et la vie; . . . Transl: <http://etext.lib.virginia.edu/toc/modeng/public/RouPoli.html>





According to Rousseau's view, economics had already taken over the former position of the king who had previously been considered as the sun or even the soul. Acting as the state body's blood, money did not carry a soul, it simply served the material redistribution in an organism whose construction is based on contracts and on the law. This seems to reflect a full acceptance of René Descartes' opinion, according to which - contrary to what antique scholarship had suggested - blood had no spiritual powers and no one's spirit grew out of food⁶⁹. There were no cosmic commands the state machinery's had to meet.

Organic metaphors remained in use in the subsequent centuries both in politics and the historical sciences⁷⁰. In 1875, 20 years before Emile Durkheim applied the concept of "organic solidarity" to individualistic societies, the German economist Albert Schäffle⁷¹ (1831-1903) published a work, widely recognized at the time, on the building and the life of the social body. In it, he, too, equated the distribution of goods and income in a national economy to the circulation of blood. The heart's rhythmic movement corresponded to the dynamics of demand and supply. According to this view, the market would be the heart of the collective body, and the individual markets would be connected to one another as a system of communicating vessels⁷². In 1920, biologist Jacob von Uexküll (1864-1944) applied his knowledge of the interconnections in nature to the state, which he believed to be a closed organism equipped with a blood circuit⁷³.

⁶⁹ Descartes speaks of a "fire without light" in the heart of creatures without a rational soul. DÉSCARTES 1969, p. 75.

⁷⁰ For further examples refer to DEMANDT 1978, pp. 79-93.

⁷¹ Schäffle was a professor of economics in Tübingen and Vienna, and was one of the first political economists to address socialism.

⁷² SCHÄFFLE 1875, p. 64.

⁷³ UEXKÜLL 1920, p. 14.





“... passing through a widely ramified network of vessels, the medium of exchange circulates in the entire organism of the state like the blood in our body”⁷⁴. “Moreover, we can find, here and there, repositories of the exchange liquid, (...) these are the small and large banks that promote the circulation of blood like hearts”⁷⁵.

The biologist Uexküll no longer looked for a soul in the liquid means of exchange. Whoever did not earn money by paid labor was excluded from this organism.

However, by the end of the 19th century global economic relationships had reached a level of complexity comparable to today. Therefore, there were many “hearts” or centers that kept the streams of goods flowing. In addition, these pumping stations were not controlled by a single governmental authority, as Uexküll would have wished; rather, these “hearts”, markets or banks could move around on a global level, just as they can today, transforming centers into peripheries or vice versa. This is why Jean Baudrillard referred to the resulting body as obscene, unshaped and impossible to conceive or represent⁷⁶. If one wanted to continue applying organic metaphors, one could say that the advancing globalization subjected the former body-like state machineries to a sprawling web of economic interdependence; they were connected to global circuits and became dependent on supplies and crossflows.

3. Blood and tears

Ever since the 18th century, the private hearts of individuals began to detach themselves from political bodies and economic circuits. While the economy of salvation

⁷⁴ UEXKÜLL 1920, p. 14. Transl. W. S.

⁷⁵ UEXKÜLL 1920, p. 15. Transl. W. S.

⁷⁶ BAUDRILLARD 1982, pp. 351-56.





had to yield to the ordinary economy, individuals sought to keep at least their personal ideas of salvation alive. However, the various individual constructions of meaning worshipped at the family altar of the heart were often incompatible with the constructions of other heart bearers. Enlightened individuals did away with the idea of blood bonds and blood aristocracy, and instead aspired for love marriages, elective affinity and soul aristocracy as forms of social bonds. In the shadow of the cult of the heart of Jesus, a secular heart cult developed, that instead of flows of blood generated flows of blood's colorless variant: tears. These gave relieve to burdened hearts, replaced bloodletting⁷⁷, and kept contagious streams of emotion in movement. Tears "touched" the heart of the other. Most importantly, whatever emanated from the heart did not demand any added value. The heart and its bonds provided a shelter from the imperatives of the economy. Tears and heartblood were given away, or indulged in individually. Sensitive men and women alike used them to write poems, letters and novels. And while money and goods flowed through the "arteries" of traffic at an ever faster rate, inward-looking citizens sought to keep their sacred heart blood separate.

Already the devil legends speak of money transformed into feces. In times of industrial production, the material output, immediately washed away by flows of money, was considered an excretion – an excretion, however, that did not originate in the heart. Flows of goods transported no emanations of the heart, and the market was not the place where one poured out one's heart. Precisely because wage labor is not intended to conduce to a selling of the soul can its products be offered on the markets, devoid of any bonds. This kind of economic circulation, therefore, has no emotional binding power. Like prostitutes, waged workers do not sell their feelings. Consumers do not owe any thanks to retailers for offering their goods, the market absolves them from any duty of reciprocity

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Cf. MONTANDON 1983, pp. 107-114.





because it offers no bonds, but rather their discharge in monetary terms⁷⁸. The latter generates dependence without creating a bond. In the social environments of individuals, centers and relationships are not established by money flows. Whoever discharges his/her heartblood today has to be prepared for nothing coming in return. And at times, this may be preferable. In the times of Aids and Hepatitis, people avoid depending on blood donations. Personal blood banks do not generate any profits, but secure independence. Blood involves a risk of infection, heartblood a risk of emotional entanglement. Even the friendliness of people in the service sectors has to remain mechanical, impersonal and sanitary in order to protect the soul from being sold⁷⁹. But the result remains the same, as Theodor W. Adorno wrote: life withdraws into itself. Such life is no longer alive, and people become living corpses⁸⁰. The media, the hearts of information flows, pump masses of blood through their channels in order to transmit nearness to life and liveliness. This “wound culture”⁸¹ relies on the consumers’ hope that blood may act as an agent of social bonds, and that the opened bodies on the screens might create a community out of the anonymous, blood-consuming viewers.

Ever since romanticism, myths of vampires and fantastic tales of blood-sucking revenants⁸² have represented the yearning for an authentic life and for emotional bonds

⁷⁸ Cf. ANSPACH 1998, p. 54.

⁷⁹ Cf. HOCHSCHILD 1990.

⁸⁰ ADORNO 1982, p. 254.

⁸¹ Cf. SELTZER 1998, pp. 21f.

⁸² Vampire legends were an object of literary writing already in the 18th century, although texts for a broader audience only appeared in the 19th century. In view of reports on blood sucking undead, scholars asked themselves whether it was the soul or the body of the dead that craved for blood. – The figure of the vampire embodies the refusal to subscribe to this differentiation. Cf. HAMBERGER 1992, p. 22.





as a thirst for blood. Strangely, the undead are relieved only when their hearts are pierced.

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