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Lessons from the past. Hildegard of Bingen

Mariano Bizzarri [*]

[*] *Dept. Of Experimental Medicine, Sapienza University, Systems Biology Group Lab, Roma, Italy*

Corresponding author: Mariano Bizzarri mariano.bizzarri@uniroma1.it

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1. A modern, old, wise abbess

Sometimes, ancient medical literature can provide useful hints into current scientific debate. This statement is quite a lapalissade – a truism – that has been recently reinforced by the 'rediscovery' of old, 'alchemical' medicaments (i.e., *Artemisia annua*), who ultimately allowed one to be awarded by Nobel prize (Yu, 2011). A number of examples could be mentioned, but it is worth noting that an impressive revival of interest (supported by modern scientific investigations) has been addressed in reconsidering the medical and herbal works of St Hildegard of Bingen (1098 – 17 September 1179) a Benedictine abbess, whose life was spent in the Rhineland.

About 40 years ago, German physicians have rediscovered the holistic approach of Hildegard von Bingen. Since then, a number of her herbal remedies have been extensively studied from a clinical and scientific perspective (Strehlow, 1984). Currently, in the German speaking areas, the Hildegard Medicine (HM) benefits from increasing popularity. As unveiled by a national survey, about 3% of all inhabitants of Germany trusts on HM. Even a relevant proportion of cancer patients is confident in HM or is interested in, while only a 15% of individual completely reject HM (Micke and Hűbner, 2009).

Fig. 1. *Liber Divinorum Operum*, I vis. 4: Cosmic correspondences (Erbari, Bib. Estense, Modena, Italy).

The history of St. Hildegard is worthy of consideration, and provides unexpected, enlightening insight over a period on which an interpretation undermined by clichés has compromised a correct historical understanding. Indeed, Hildegard, as well as many other old-time religious, had most of the interests of the modern time and pursued them with even more than modern zeal and success, very often.

Fig. 2. Sacro Speco ('the sacred grotto'), nearby Subiaco, Italy, the first St Benedict's monastery (550 – 1000 AD).

Most – if not 'all' – 'scientific' attempts performed during the so-called Low Middle Ages (1000-1300 BC), can ultimately be ascribed to the heritage of St. Benedict. This is especially true when we focus on what the Benedictine Order done for women through the tireless activity of St Scolastica (the sister of St Benedict), allowing nuns searching for both spiritual and intellectual accomplishment. The Hildegard's life illustrates in a special way all that, by pursuing a tradition dating back to ancient Greeks. Indeed, the whole question of feminine education we are apt to think of as modern, forgetting that Plato insisted in his *Republic* (455d), as any modern feminist, that women should have the same opportunities for education as men. Similarly, at Rome, at the end of the Republic and the beginning of the Empire, the women occupied very much the same position in social life as our own at the present time (Cartwright, 2014).

2. Hildegard biological thought

Hildegard's healing practices are principally supported by her belief in the creation and redemption of man. She emphasizes the special position man occupies in the universe. Throughout her works, she never tires of emphasizing the original harmony between man, God, and the universe.

However, it is worth noting that Hildegard's medicinal papers, though inspired by her religious visions, as many other writings of the time, are however different in methodology and scope.

In the first place, scientific inquiries and medical advices were rooted neither on her metaphysical belief nor to the authority of previous scholars. Instead, Hildegard's papers mostly rely on her personal experience gained by leading the monastery's herbal garden and infirmary, following the teaching previously firmly established by St. Benedict of Nursia, the founder of the Order to which Hildegard belonged. This does not means we intend to underestimate the valuable contribution provided by collections of herbaria and almanacs, usually present in the monastery library[1].

Besides the religious (three theological volumes, including *Liber Scivias*) and musical books, altogether with several other manuscripts dealing with disparate topics, Hildegard's scientific works include two main collections of texts focused on natural herbal remedy and human diseases. The first, *Physica*[2], contains nine volumes describing the biological and healing properties of a number of plants, stones, and animals. The second, *Causae et Curae*, starts with a spiritual/behavioural decoding of the human body, its 'correspondences' with the physical world thought as useful in providing interpretative hints for understanding human diseases (Hildegard of Bingen, 1998). Then, healing properties of wide arrays of plants, salts and minerals are extensively reviewed, not only in respect to Galen humoral doctrine, but especially based on an empirical knowledge personally acquired by Hildegard. We are thus learned that Hildegard's medicine was able in treating several medical ailments, as well as some surgical illness as burns, fractures, dislocations, and cuts, frequently occurring among farmers and agricultural workers (Sweet, 1999).

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[1] It is worth noting to recall the relevance of a few texts, including in a first place the *Physiologus*, an allegorical natural history book created in 2nd century in Egypt with unknown attribution. The book, originally written in Greek, was available in several translations, including Latin (Zucker, 2005). Second, the *Materia Medica*, by the Greek physician Dioscorides Pedanios (90 AD). In the field of botany and plant science, it is one of the most important and influential compilations of medicinal plants ever compiled. On the subject of gardening, Hildegard was also highly influenced by the famed scholar Walafrid Strabo (9th Century, Abbott of Reichenau), who authored the *Hortulus* (i.e., 'vegetable garden'). The body of herbal healing traditions recognized in the Middle Ages was known as *Macer Floridus* (11th century), while the primary plant pharmacopeia on medicinal herbs developed by Matthaeus Platearius, the medieval physician from the medical school at Salerno, is known under the title of *Circa Instans*, "The Book of Simple Medicines" (for a comprehensive review see, Walsh, 1911).

[2] *Liber Simplicis Medicinæ* was published as *Physica St. Hildegardis*, at the beginning of the sixteenth century by Dr. Schott at Strasburg. The current edited and integrated version is printed in *Migne's Patrologia*, under the title *Subtilitatum Diversarum Naturarum Libri Novem* (« Subleties of the Diverse Qualities of Created Things in nine books»). *Liber Compositæ Medicinæ*, was found by Dr. Jessen, in 1859, in the library at Copenhagen, with the title *Hildegardi Curæ et Causæ*, and it is currently known as *Causae et Curae*. The complete English translation of the Hildegard books on health and healing have been published by Priscilla Throop in 1998 (Hildegard of Bingen, 1998 *Physica*, (Eds. P. Throop), Healing Art Press, Rochester, VT).

3. Benefit from plants and herbs

In her writings, Hildegard discusses the potential benefit of each ailment and/or herbal remedy, specifically by referring their health effect to the different organs - the brain, the eyes, the teeth, the heart, the spleen, the stomach, and the liver. Specific chapters are focusing on redness and paleness of the face, on asthma, on cough, on fetid breath, on bilious indigestion, on gout. Several illness are investigated in detail, from symptoms to treatment, thus providing an exemplary survey on the most common diseases to whom physicians of the Middle Ages are dealing with. Noticeably, in reading those documents, we are surprised to find that nearly all of our methods of diagnosis are to be found, hinted at least, in Hildegard's books.

In reading these texts we may also appreciate how wider the field of application of the medieval medicine was, even richest than previously guessed, given that available documentation often misses to include manuscripts written in vernacular (i.e., any text not written in Latin or Greek), or remedies whose use/composition has been transmitted through an oral tradition.

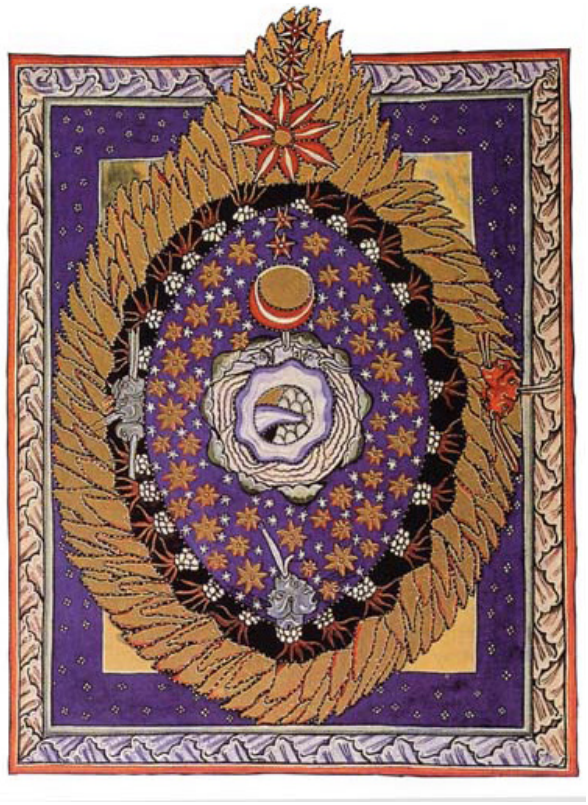

Fig. 3. Hildegard of Bingen - *Liber Scivias*, I vis. 3: The cosmos as a giant egg. Erbario, Bib. Estense, Modena, Italy.

This empirical approach allowed Hildegard to suggest some impressive and anticipatory intuitions, scattered among the pages of her books. For instance, she suggested that the brain was the regulator of all the vital qualities, being correlated through the spinal cord with different organs where 'nervous activity' (conceived as distinct from the 'spiritual' one) modulates every manifestation of life. Inasmuch Hildegard was unaware of any medical notion about blood circulation, yet she established an analogy between blood flow, moving through the veins (which causes them to vibrate and pulsate), and heavenly bodies ("Just as the blood moves in the veins so as the stars move in the firmament and send out sparks as it were of light like the vibrations of the veins"). Furthermore, Hildegard already knew that exposing blades to fire would reduce the risk of 'complications', while she even stressed the value of boiling drinking water in an attempt to prevent infection.

At the core of Hildegard of Bingen medicine, lies the central belief in the power of nature. A power that seeks balance, a power that man is subject to – but can also be harnessed for his benefit, for man is blessed with the unique station of practicing mastery over his own pursuit of living well. First, one as to understand that life is an *endlessly progression*, behaving like developmental processes occurring in the egg, complying with coherence and harmony in all of its parts. Moreover, this imply that no single part works in isolation, but rather the 'whole' (the organism) is a dynamic, integration of all components (including material and spiritual elements).

According to Hildegard's views, the disease is not a process, but an *absence of process*, a failing in the course of nature. Once our collective functions deviate from orderly process, we experience illness, with the ultimate result of this imbalance or immoderation being death. Thus, when she approached medicine as a type of gardening, it was not just as an analogy.

Rather, Hildegard understood the plants and elements of the garden as direct counterparts to the humours and elements within the human body whose imbalance led to illness and disease.

It is amazing how many herbal remedies have been thoroughly investigated in Hildegard's writings, including also a number of herbal preparation currently in use in phytotherapy, comprising *Artemisia a., Potentilla r., Chelidonium m., Sylibum m., Calendula o., Anethum g., Althaea o., Genziana l., Curcuma z.*, just to mention a few. Hildegard went on in explaining in detail how herbs are to be grown, harvested and dried. Different methods of extraction of active ingredients (although

they were then unknown as such) have been carefully evaluated. Finally, different medical remedies (creams, ointments, syrups, dried preparations, decoction, cold extract, formulas for inhalations) were extensively reviewed and discussed regarding their application in different clinical settings. Once more, it is amazing how many of these remedies are currently renowned for their effectiveness in a number of medical situations (Koehn & Carter, 2005).

Moreover, Hildegard distinguishes a double mode of action of different substances, one chemical, the other physical, this latter thought to be active on the 'field' in which organs and living structures are located. Indeed, 'physical factors' – including physical stresses, climate factors, ailments or drugs – plays a relevant role in Hildegard's health beliefs.

4. An integrated biological perspective

Hildegard was not actively opposed to 'modern' medical treatments, even those of her time. However, she observed a strict hierarchy of treatment, as she guessed that medicine needs a 'general theory', on which medical practice must be founded. According to this hierarchy of wellness, our first step in realigning, finding balance for good health (*discretio*)[3], include pursuing basic lifestyle changes. Some of the most basic changes start with improving nutrition, while she advocated for balance within all areas of life. The practice of seeking balance and practicing moderation requires that one acknowledge and honour the interconnectivity of spirit, mind and body. Similarly, Buddha emphasized the middle way as a path of moderation and the path of wisdom.

Incorporating Hildegard of Bingen medicine into our own lifestyle is not meant to be onerous, but it is also not meant to be a panacea absent of practice. Hildegard was a deep thinker who believed that the truth reveals only through tests of will, effort, sacrifice, and discipline. Her teachings presume that work needs to be done. That in this pursuit the rewards await those who chose to do the work. It is noticeable how so many of the aforementioned advices sound so modern in current time. Should Hildegard works be reconsidered, by 'reframing' them into a modern acceptance?

[3] Saint Benedict refers to 'discretion' (*discretio*) as the "mother of all virtues": *Discretio Temperat Omnia* (Discretion Guides Everything). Discretion lays the foundation for Hildegard's thinking; it serves as the bases for all subsequent action.

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