

## *Firdaws al-Hikma for the Bedouin Heritage*

فردوس الحكمة للتراث البدوي

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*Aref Abu-Rabia*

[arefabu@gmail.com](mailto:arefabu@gmail.com)

### **Aims and Purposes:**

The main aim is to establish a Center for the preservation of the Bedouin heritage in the Negev.

1. The Center will be utilized as an educational tool for the preservation of the Bedouin Heritage.
2. To establish a garden for medicinal and aromatic plants, including spices, cosmetics and dyeing; which are used by the Bedouin to heal illnesses.
3. To investigate as well as to promote the use of plants to improve human life.
4. The garden will be used for collecting, reservation, and research of medicinal plants.
5. Students in the Center will develop the capabilities to identify sense and be directly aware of the human and physical environment, as well as their roles and responsibility towards it.
6. The Center will also have research functions, teaching, training in Bedouin culture and heritage, ethno-medicine and ethno-pharmacology. Bedouin and non-Bedouins will take part in guiding and teaching students.
7. Students themselves will produce educational programs for students; and encourage child-to-child, and student-to-student activities.
8. Teachers, students, and healers will come together for seminars to plan joint activities.
9. To supply education, health, food and employment services.
10. Encouraging research and study of the Bedouin heritage, by supporting grants for students.
11. To assist promotion of peace education, co-existence, world co-operation and understanding.
12. The Center will be used for teaching, demonstrations, and training for primary school students, high school and university students as well as for casual tribal peoples and farmers, in Palestine and the Middle East, and for overseas students and scientists.
13. Students, farmers and native communities will be given courses on basic agricultural training.
14. Helping the Bedouin to earn livelihood from the rural ecological environment.
15. The Center will include a library for Arabic-Islamic medicine and traditional medicine.

16. Constructing workshops to produce medicinal and cosmetic products; oil-press, grape-press, and dye works.

### **Introduction:**

People have been using medicinal herbs for several thousand years. The Assyrians used the opium poppy as an important medicinal herb. The Chinese used medicinal plants, in 2700 B.C.E., for example, as a list of more than 300 medicinal plants was published in China (Duke:1991; Mursi: 1966). The Indians make widespread use of medicinal plants as well. Many professionals have gone to India to learn the secrets of Indian vegetarian medicine (Jaine and DeFilips:1991; Kutumbia: 1974). The Persians have also done their share in studying the medicinal virtues of plants alongside orthodox medicine and reached a high level of this in the city of Gundishapur (Ullmann:1978). The Greek, Hippocrates, who are considered to be the fathers of medicine, left descriptions of about 400 medicinal plants. In Egypt, the Pharaonic medicine, detailed lists of herbs, including hundreds of medicinal plants, have been found dating to 1550 B.C.E. (Kamal: 1964). In ancient times, the Arabs controlled the land trade in medicines and cosmetics, while the Sidonians (Phoenicians) controlled the sea routes.

### **Arabic Medicine:**

Ancient Arabic medicine was influenced by the ancient medicinal practices of Mesopotamia, Greece, Roman, Persia and India. The Greco-Roman system of medicine had developed, based primarily on the writing of Hippocrates (460-360 B.C.), Dioscorides (circa 54 to 68 AD) and Galen (130-201 AD). Alexandria, Rome, Constantinople, Antioch, Edessa and Amida, flourished as centers of scientific and medical activity. A combination of political and religious events caused many Greek and Syriac-speaking scholars to move eastward to Persia and to establish centers of learning there. The city of Gundishapur in southwest Iran also became a center of learning in the sixth century AD, integrating many languages and cultures, namely Greek, Syrian, Persian, and Hindu. The medical school of Gundishapur supported the translations of Greek and possibly Sanskrit texts into Middle Persian and Syriac (Mursi 1966: 7-12; Savage-Smith 1996:907-908).

Contemporary physicians during the time of the Prophet Muhammad (571-632 AD) were al-Harith ibn Kilda [Kalada](d. 634) who was the doctor of the Arabs in his time. He traveled to Gundishapur

in Persia and studied medicine before the spread of Islam (Hawting 1989:127-137). Another physician was Ibn Abi Rimtha, who supposedly practiced surgery. The saying (*Hadith*) of the Prophet Muhammad, on health and illness, as well as on hygiene and sanitation, was systemized and became known as Medicine of the Prophet (*al-Tibb al-Nabawi*) (Hawting 1989:127-137; Savage-Smith 1996:905-908). During the period that followed the time of the Prophet, new cities were built according to healthy and hygienic principles (Al-Said 1997:696). During the Umayyad rule (from 661-750 in the East (based in Damascus), translations of ancient medical works began. Within five centuries (750-1258) the Abbasids dominated the sociopolitical life of the greater part of the Muslim world. The caliphate was moved to Baghdad, and the ten Caliphs of the period were generous in their promotion of knowledge and medicine, especially al-Mansur (reign 754-775), Harun al-Rashid (r.786-802) and al-Ma'mun (r. 813-833). A hospital was built and became the cradle of the Baghdad school of medicine; many physicians were brought to Baghdad, one of them was Jurjis ibn Jibra'il ibn Bakhtishu'. Countless manuscripts, particularly those written in Greek, were collected and stored in *Bayt al-hikmah* (house of wisdom, established in 830, by Caliph al-Ma'mun), there scholars worked to translate them into Arabic (Hitti 1952:311-312; Ullmann 1978:7-40). Within a century Muslim physicians and scientists were writing original contributions to medical and botanical knowledge. Baghdad centers of medical learning had already been founded in other parts of the Muslim world. The next three centuries saw the synthesis and creation of new drugs and therapies. One of the greatest and most famous Islamic doctors was Ibn Sina (Avicenna 980-1037), who combined the Canon of Medicine (*Kitab al-Qanun fi al-Tibb*), which is the epitome of Islamic medicine, and the culmination and masterpiece of Arab systematization and includes many descriptions of uses for medicinal plants (Al-Said 1997:695-698). Another Arabic philosopher-physician was al-Razi (Rhazes 865-923) who composed a "Comprehensive Book on Medicine" (*Kitab al-Hawi fi al-Tibb*). The material composed by al-Hawi is arranged under the headings of different diseases, with separate sections on pharmacological topics. It should be noted that Ibn Sina and al-Razi's works were later translated into Latin, and continued to influence medical work until the eighteenth or even the nineteenth century (Johnstone 1998:xxx, Murad 1966; Al-Shatti 1970).

In the western end of the Islamic empire, the Umayyads of Andalus (Islamic Spain) established themselves after the downfall of the Umayyads of Damascus in 750, and made their capital at Cordoba. The areas of Cordoba and Granada became centers of learning. The rich and diverse flora

of Spain was a contributing factor to the development of medical botany. The majority of physicians were herbalists and vice versa. Physicians like Ibn al-Baytar (1197-1248) spent his early life identifying and working on different plants. Ibn al-Baytar, whose work "Compendium of simple drugs and food" (*al-jami' li-mufradat al-adwiya wa'l-aghddhiya*), in which he described more than 1400 medicinal drugs, which 300 drugs not previously described, was recorded alphabetically and discussed in clarity and detail; he also specified the names of herbs and remedies in various languages, thus providing a first class tool for the comparative research of medicinal plants. Other well-known physicians who also wrote on plant uses were: Ibn Juljul, al-Ghafiqi, Ibn Bajjah, Ibn Samajun, and Abu'l-Hassan al-Andalusi (Al-Najjar 1994:159-229; Johnstone 1998:xxxix-xxxii). This medical tradition was molded in the 10<sup>th</sup> century, developed in the 11<sup>th</sup> and 12<sup>th</sup> centuries and reached its peak in the 13-16<sup>th</sup> centuries, and later declined in the 17-19<sup>th</sup> centuries (Hamarnah 1991; Lev 2002:177). Traditional medical information grounded in Arab medicine of the Middle Ages were gradually transferred to local traditional healers and to the general public. Medical literature and healing methods that had been at the focus of traditional medicine for over a 1000 years became, in the 19<sup>th</sup> and 20<sup>th</sup> centuries, the exclusive domain of traditional medicine and folk healers (Lev and Amar 2000: 191-205). Those folk healers continued to use and consult the medical literature written in the Middle Ages (Abu-Rabia 2005:404-407; Lev 2002:179).

### **Phyto-chemical Aspects:**

The Phyto-chemical revolution in the 19th century led to the discovery of ways to identify and isolate the chemical components which are active in medicinal plants. However the development of organic medicine led to the production of synthetic medicines, most of which were based on the structure and physiological action of the natural substances, without being reliant on the plants themselves as a source for their production. It should be noted that the trend today is to increase the use of plants as a source for the production of medicines. In addition, there are still important medicines for which no synthetic replacement exists. These include: steroids produced from the Dioscora plant; atropine and scopolamine produced from the Datura, Duboisia and Atropa Belladonna plants; codeine produced from the Papaver somniferum plant; reserpine produced from the Rauwolfia plant; digoxin and digitoxin produced from the Digitalis Lanata and Digitalis Purpure plants; pilocarpin produced from the Pilocarpus Jaborandi plant; quinidine produced from the

Cinchona plant (Palevitch 1978:264-270). There is evidence that garlic can significantly lower cholesterol; that valerian root helps people to sleep; purple coneflower (Rudbeckia) treats cold and influenza.

### **W.H.O. Views:**

The World Health Organization encourages its member countries to concentrate on primary health care and exploit all possible native sources. Following this resolution, many countries, particularly in Africa, turned their attention to traditional medicine and its function in the development of health services in those countries. Some of them adopted resolutions to study and restore traditional medicine and to recognize its value as a complement to modern medicine, within the framework of the existing medical services. The traditional healers are acknowledged as persons who usually receive patients seeking cures for illness. Generally the treatments are based on knowledge and on approaches such as causality, classification and diagnosis of the illness. Actually, the traditional healer functions as a botanist, pharmacist, psychologist and tribe or group leader, in his treatment of the various illnesses. It should be noted that in the past decade there has been renewed attention and interest in the use of traditional medicine globally. In China, traditional medicine accounts for around 40% of all health care delivered. In Chile 71% of the population, and in Colombia 40% of the population, have used such medicine. In India, 65% of the populations in rural areas use Ayurveda and medicinal plants to help meet their primary health care needs. In developed countries, traditional, complementary and alternative medicine are becoming more popular. For example, the percentage of the population that has used such medicines at least once is 48% in Australia, 31% in Belgium, 70% in Canada, 49% in France and 42% in the USA (WHO:2003).

### **Traditional Medicine:**

The use of traditional medicine in the 20<sup>th</sup> century, particularly herbal medicine, is widespread throughout the Middle East including Palestine (Abu-Rabia 1999; Ali-Shtayeh, Yaniv and Mahajna 2000; Bailey and Danin 1981; Krispil 1986; Palevitch and Yaniv 2000; Pillsbury 1978:1-25; Tal 1981:15-17).

The philosophy of traditional Bedouin medicine draws its strength from the belief in fate, that all things that happen to man, both good and evil, are the will of Allah. According to the Bedouin, both health and illness are caused by Allah, with the help of natural and supernatural powers created by

Him. These powers are the source of healing. Most illnesses are a direct punishment by Allah for our sins. The use of traditional medicine is widespread throughout the Middle East. One of the most famous medicines in use among the Arabs in the Middle East is the *arba'yn*, which consists of a mixture of forty different types of plants and is considered to be a cure for all aches and pains. In traditional and folk medicine, the Arab appeal to the Dervish; the *Khatib*-the writer amulets; the Caulerizer; the *Mujabbir* (for setting of broken or fractured bones); the Herbalist; Midwives; 'Attar (local Pharmacologist), vendor of medicinal spices; the Holy Tombs (of an ancestor or a prophet); the Sea, River, Holy Springs, etc. (Abu-Rabia:1999, 2005).

**Location:**

The Negev comprises 12,500 sq. km. This area is defined as semi-arid and serves the Bedouin population for dwelling, grazing and dry farming. The location characterized by diverse flora and fauna. The lack of stability in the amount of rainfall and its regional and seasonal distribution affect the flora, the fauna and the lives of the Bedouin. The average rainfall in this location fluctuates between 150-250mm.

The garden will be located in the lands of Abu-Rabia tribe, 33 km from Beer-Sheva, Negev. The garden's land area will be about 200 dunams, with the option to be extended up to 500 dunams. The land is donated by the Abu-Rabia Family in memory of our father Sheikh Ibrahim Salem Abu-Rabia.

**Budget:**

Perimeter fence	100, 000
Working tools	50, 000
Water tanks/reservoirs	50, 000
Installation of irrigation sprinkling system	200,000
Planting of plants shrubs and herbs	500, 000
Four maintenance workers	200, 000
Two generators	100, 000
Master and doctoral students' grants	500, 000
Purchasing laboratory's equipment	150, 000
Pick up car fuel, etc.	30, 000
Planning mapping and development the field	150, 000
Library: Books	800, 000
Constructing the Learning Center	2,000, 000
Tractor, cart and field equipment	120, 000
Total Budget:	US \$ 4,950,000

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