

moins des fragments non identifiés de range dans leur groupe. Aucune inscription ou ornement caractéristique conservés, ne viennent toutefois confirmer cette assertion.

L'écart dans le temps, pour la partie arabe du trésor, se fixe entre les règnes des émirs Isma'il ibn Aḥmad (279—295 h. = 892—907 A. D.), d'une part, et Maṣṣūr I ibn Nūḥ (350—366 h. = 961—976 A. D.), d'autre part. L'on doit supposer que les deux fragments classés abbassides proviennent de la même époque: le type d'écriture et la disposition des inscriptions l'indiquent. Le fragment de monnaie ziyaride se place également dans les susdites limites temporelles.

Comme c'avait été le cas pour le trésor de Gniezno-Osiniec, la partie arabe de la trouvaille de Maszenice ne contribue en rien à une modification à faire quand à la datation de l'ensemble qui renferme des monnaies d'Europe occidentale plus jeunes que les arabes. Voici les pays de provenance de ces pièces:

Monnaies	entières	fragments
bizantines		1
anglaises	3	95
danoises		4
italiennes	2	2
allemandes	110	228
deniers		
d'évêques	85	139
polonaises		7
tchèques		34
hongroises		1
imitations	20	8

En plus 15 petites plaques rondes de frappe imparfaite ou fort oxydées.

La pièce la plus jeune est un fragment de denier d'Henri III (1039—1056), frappé en Italie à Pavie.

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DOCUMENTS ET COMMUNICATIONS

AL-MAS'ŪDĪ ON BALNEOLOGY AND BALNEOTHERAPEUTICS

When al-Mas'ūdī comes in his *Kitāb murūḡ ad-dahab wa-ma'ādin al-ḡawāhir*, in the chapter dealing with Sūdān, to the description of the land of Oasis in Egypt and writes on the mineral-sources there¹, he makes a digression, a characteristic typical for the most of the Arabic medieval authors, and speaks about the

¹ Al-Mas'ūdī, *Kitāb murūḡ ad-dahab wa-ma'ādin al-ḡawāhir*, ed. by Barbier de Meynard et Pavet de Courteille, Paris, 1864, vol. III, chapter XXXIII, pp. 50—52. The information concerning the mineral-sources finds its confirmation in the works of al-Bekrī, *Kitāb al-masālik wa'l-mamālik*, ed. by de Slane, Alger 1911, p. 15, Yāqūt, *Mu'ḡam al-buldān*, ed. by F. Wüstenfeld, Leipzig, 1924, vol. IV, p. 873, al-Maqrīzī, *al-Mawā'iz wa'l-i'tibār fi dīkr al-ḥiṭaṭ wa'l-āṭār* ed. by G. Wiet, Le Caire, 1923, vol. IV, fasc. I, p. 113 and also in *Handbuch der Geographischen Wissenschaft*, vol. *Afrika in Natur, Kultur und Wirtschaft. Ägypten und der Engl.-Ägypt. Sudan*, von A. Kaufmann, Erfurt, 1930, p. 156. The resemblance between the corresponding texts of al-Mas'ūdī and of al-Maqrīzī is striking. Though al-Maqrīzī, according to Wiet, owes this information to Ibn Faḍl Allāh al-'Umārī (cf. C. Brockelmann, *GAL* II, 141, S. I, 218, II, 175), Ibn Faḍl Allāh seems to be only the mediator between al-Maqrīzī and al-Mas'ūdī. I insert below the similar parts of al-Mas'ūdī's and al-Maqrīzī's texts concerning the mineral-sources:

AL-MAS'ŪDĪ

فاما بلاد الواحات وهي بين بلاد مصر
والاسكندرية وصعيد مصر والغرب وارض
الاحابش من النوبة... وبها ارض شبيهة زاجية
وعيون حامضة... وما بارضهم من العيون
الحامضة وغير ذلك من المياه المختلفة الطعوم...

AL-MAQRĪZĪ

وبلاط الواحات بين مصر والاسكندرية
والصعيد والنوبة والحبشة...
... و في ارضها شبيهة زاجية وعيون
حامضة... وعيون مختلفة الطعوم

different kinds of mineralwaters, their usefulness and their healing-abilities in general². The just mentioned text runs as follows:

وقد ذكر صاحب المنطق ان ببعض المواضع عيوناً حامضة يستعمل ماؤها كاستعمال الخل وذكر المواضع التي تنبع منها العيون المرة وان قوة مائها في المرارة لا يخاطب شيئاً الا مرره وان العلة في اختلاف هذه الطعوم في المياه من الارضين المختلفة مثل مواضع الشب والمواضع النارية الرمادية وذكر الاطعمة التي ببلاد صقلية المقدم ذكرها اذا خالطت الماء افادته طعوماً مختلفة على قدر اختلافها واعداد طعومها واعداد الطعوم ثمانية فاؤها العذب والدسم والحلو والمالح والحامض والمر والقابض والحريف وقد تنازع الناس فيما ذكرنا ففهم من رأى ان اعدادها سبعة ومنهم من ذهب الى انها ستة واكثر من قال في اعدادها هو ما ذكرنا من انها ثمانية وقد قال من سلف في قوى المياه اقاويل مختلفة فمن ذلك ان العذب مغدى مرعم ان كان سخناً فان استعمل من خارج ومن داخل بقدر الحاجة اليه فانه ينقى الجسد وان استعمل اكثر مما يحتاج اليه فانه يرخي الاعضاء ويضعفها وان البارد يشد الاعضاء ويدفع العطش وان الزيادة منه تحذر الجسد وتميته وان الماء الاجاج ينفع من سدد الكبد والطحال وان الكبريتي ينفع الجروح والقروح العتيقة والحكة والبورقي نافع للحكة والجرب واما القاري فانه نافع من اوجاع الصلب والعصب وماء الحديد نافع من استرخاء الحشا وباطن الاوعية وماء التحامن نافع من الرطوبة والبله الكائنتين في الجسد والرأس وماء الجص يشج المعدة ويقبضها ويكرشها وماء الزاج يحبس الدم وماء البحر نافع من البرص وقد ذكر جماعة انه ينفع من الاخلاط الفاسدة اذا شرب السبر منه مع دهن اللوز وله في البصر اتعاب قطع وان اصح المياه للاجساد الابلض البراق الذي يخرج من جبال الطين من مشرق الشمس نحو مغربها القابل بسرعة ما يرد اليه من الحر والبرد وللناس فيما ذكرنا كلام كثير في انواع

² Al-Mas'ūdī, op. cit. pp. 52—55.

المياه ووصافها ومنافعها ومضارها ليس كتابنا هذا موضعاً لها وانما تغفل بنا الكلام الى ذكرها وتشعب بنا القول الى وصفها...

„Aristoteles says that in certain places there are sour sources and their water is used as a vinegar. He mentions some places, where bitter sources gush and [such is] the strength of their water in regard to the bitterness that it makes bitter everything with what it comes to a contact. [He says] that the cause of diversity of these savours in waters [lies] in [the nature] of different terrains like e. g. the grounds with alum and places with igneous materials or with cinders. He mentions the savours in the land of Sicilia, which we have mentioned before [and says] that when they [the savours] mix up with water they result in differentiating its taste, according the variety and number of savours.

The savours are eight in number. The first of them is sweet, [then come] bituminous, sugar-sweet, salty, sour, bitter, cinstringent, and tart. The people differ in regard to what has been just said and there are some among them considering that they (the savours) are seven in number and some who affirm that they are [only] six. But most of them say [the same thing] that we have just mentioned, that they are eight in number. Concerning the virtues of waters, there are different opinions, and so for instance: the sweet water is nutritive and favourable when it is hot and when it is used outwardly and inwardly in proper quantities, because it cleans then the flesh, but when it is used in surplus it disables the members and weakens them. And when it is cold it strengthens the members and drives the thirst away, but the surplus of its makes the flesh frail and kills it. The bitter water helps against the obstruction of liver and spleen. The sulphuric water cures wounds, obsolete ulceration and itch. The borax-water heals itch and pimples. The bituminous water cures the pains of loins and nerves. The iron-water removes the exhaustion of intestines and cures the inside of entrails. The copper-water cures dampness and humidity in flesh and in head. The gypsum-water contracts, squeezes and folds the stomach. The vitriol-water (water with sulphates) stanches the blood. The sea-water cures the leprosy. Some people say that it cures the malign humours when it is drunk in small proportions with [the addition] of almond-oil and that it weakens the sight considerably. But the most favourable for the flesh is the white water containing borax which flows out from the clay-mountains [and flows] from the East to the West imbibing quickly the heat and the coolness sent to it [by the atmosphere]. In regard to this what we have said, people undertook many discussions concerning kinds of waters,

their descriptions, their usefulness and their harmfulness, but our book is not a place for dealing with them. We have only mentioned them incidentally and giving their description we have deviated from our main probleme¹.

Considering the fact that al-Mas'ūdī was neither a physician nor a pharmacist we face the question who was his informant or who were his informants in this matter, al-Mas'ūdī himself points to Aristoteles. But the closer study has proved that it is true only for the part of the text, namely for this one dealing with the general description of waters, the enumerating of savours and the dependency of waters' savours upon the nature of the terrains².

The other part concerning the medical administration of mineral-waters with the exception of the copper- and sea-water belongs undoubtedly to the father of medicine Hippocrates³. Hippocrates was very well known to the Arabs and his works were many times translated, interpreted and commented by them. Up to the time of al-Mas'ūdī the most famous translator and commentator of Hippocrates was, beside Qusṭā ibn Lūqā, 'Isā ibn Yaḥyā and al-Kindī, Hunayn ibn Ishāq⁴. It is most probably to him that al-Mas'ūdī owes his knowledge of Hippocrates. That he knew the works of Hunayn we learn from al-Mas'ūdī's *Kitāb at-tanbīh wa'l-iṣrāf*⁵ and thus we are not risking much by saying that Hunayn was the mediator between him and Hippocrates. As Hunayn was not only a translator but also a commentator of Hippocrates, the informations which we cannot find in his work may simply come from Hunayn himself.

Al-Mas'ūdī does not cite neither Aristoteles nor Hippocrates literally, he simply compiled the informations relative to the mineral-sources dispersed in the mentioned works of the two Greek authors, which he came to know by means of Arabic and may be also Syrian translations.

Being not a M. D. I do not claim to give a detailed commentary to the above-inserted text, I only want to draw attention of the specialists to it. Anyway the healing-abilities handed down to us by this Arabic text find, with some exceptions, their confirmation in the modern balneotherapeutics⁵.

¹ Cf. Aristoteles, *Meteorologica*, II, 1—4.

² Hippocrates, *Περὶ ἀέρων, ὕδατων, τόπων*, VII—X.

³ Cf. Bröckelmann, *GAL*, I, p. 205—6, S. I, pp. 366—369.

⁴ Al-Mas'ūdī, *Kitāb at-tanbīh wa'l-iṣrāf*, BGA, VIII, Lugduni Batavorum, 1894 pp. 112, 131, 132, 163.

⁵ Cf. Alibert J. L., *Précis historique sur les eaux minérales*, Paris, 1826 passim; *Handbuch der allgemeinen und speciellen Balneotherapie*, Berlin, 1876, passim.

Closing my remarks I would like to admit that I tried to give a small contribution to the history of medicine and the opinion as to whether it was worth-while rests with my learned readers.

A. Czapkiewicz

L'ÉLEVAGE DES ANIMAUX DOMESTIQUES CHEZ LES ANCIENS SLAVES D'APRÈS LES SOURCES ARABES ET PERSANES DU IX^e AU XIII^e SIÈCLE *

Les informations sur l'élevage des animaux domestiques chez les Slaves à l'époque du haut Moyen Age proviennent en principe de deux sources: des fouilles archéologiques et des mentions conservées par les sources écrites. Ces sources n'ont pas encore été suffisamment étudiées. La susdite remarque concerne en premier lieu les restes très abondants d'animaux domestiques fournis par les fouilles effectuées en pays slaves, où l'on trouve fréquemment de riches matériaux en ossements d'animaux domestiques, dans différents bourgs et bourgades, parfois aussi dans les tombeaux. C'est à peine une part menue de ces trouvailles qu'on a étudiée de manière scientifique; la plupart reste encore à étudier. Il en est de même des mentions concernant l'élevage des animaux domestiques chez les Slaves du haut Moyen Age, que l'on trouve insérées dans de nombreuses sources écrites occidentales, byzantines, russes, arabes et autres. Elles aussi, elles attendent un examen systématique. Seule l'étude de ces deux genres de sources et la confrontation des résultats ainsi obtenus permettraient d'apprécier à sa juste valeur l'importance de l'élevage d'animaux domestiques dans l'économie slave du haut Moyen Age, ainsi que le rôle joué dans cette économie par les genres particuliers d'animaux domestiques.

Cet article a pour but d'étudier les mentions contenues dans les sources médiévales arabes et persanes, concernant l'élevage d'animaux domestiques chez les Slaves. De même que d'autres informations arabes et persanes qui se rapportent à la culture des Slaves, ces mentions ont un caractère fortuit et sont loin d'épuiser l'ensemble du problème.

* Le présent article qui d'ailleurs n'a que le caractère d'une étude provisoire, se base principalement sur les sources écrites arabes et persanes provenant du haut Moyen Age et n'a point la prétention d'épuiser à fond le problème de l'élevage des animaux domestiques chez les Slaves médiévaux. Ce problème a déjà été l'objet d'une étude publiée en polonais dans le deuxième volume de la revue „Kwartalnik Historii Kultury Materialnej” (Warszawa, 1954).