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Ward, Rachel

Incense and incense burners in Mamluk Egypt and Syria .-- 1992 ISSN: 0306-0926 : Transactions of the Oriental Ceramic Society, vol. 55 / 1990-1991 pp. 67-82, (1992)

Art - general | Museums & galleries | Great Britain

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Smith, Clive

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ARABIAN FRANKINCENSE IN ANTIQUITY ACCORDING TO CLASSICAL SOURCES

Walter W. Müller

The species of trees of the genus *Boswellia* which produces the genuine frankincense, Arabic *libân*, is only to be found in the central coastal region of South Arabia, on the island of Socotra, in Somalia and on the Indian coast of Coromandel. Due to its pleasant odour and other qualities, frankincense in antiquity in almost all countries of the Near East and of the Mediterranean Sea, belonged to the most demanded and most expensive spices. It was not only indispensable for sacrifice in divine worship, but was also burnt at funerals, profane festivities and in honour of living persons and used to a great extent for the preparation of medicines.

The Greek names which designate frankincense, *libanos* and *libanôtós*, from which late Latin *libanus* and *libanum* are derived, have long been considered to be of Semitic origin. They are not only Semitic, but strictly speaking loanwords taken over directly from the ancient languages of South Arabia, where the form *libân* still survives in the Arabic dialect of the frankincense region Zafâr and was recorded for other parts of South Arabia as well. A Latin-Arabic glossary which originated in Islamic Spain¹ records under the entry *tus*, i.e. *incensum hoc est libanum*, the Arabic equivalent vocalised explicitly as *libân*. Perhaps this form as well as *libân* in the Arabic dialect of Egypt² reflects the original type of morpheme, whereas Classical Arabic *libân* is the result of a regressive labialisation of the first vowel. Various words from different languages of Ethiopia can also be derived from a South-Arabic *libân* which is in fact not attested in the ancient epigraphic sources from Arabian soil. I am well aware that there is a supposed Sabaic form *lb'nhn* in CIH 338 = Glaser 1209 which was translated by "two frankincense plantations" or "two containers (or boxes) for frankincense". However, a good photograph of this rock-inscription from Hajar Zahra in the region of Arhab, which was placed at my disposal by Mr. F. Kortler, shows that the reading based on the squeezes of Glaser is defective and that the word in question is in fact *lb'nhn* "two lions", a dual-form likewise attested in Ry 538,31 and Iryânî 21 § 1. As a result, the assumed "frankincense" has to be discarded from lines 8 and 9 of this inscription, the context of which speaks of the building and erection of a house, various kinds of altars and of two lions, probably made of bronze.

The earliest evidence of the Greek word *libanos* is to be found in a wedding-song by the poetess Sappho³ (c. 600 B.C.), where it is said that myrrh, cassia and frankincense were mixed together. Not only *libanos* but also the two other nouns for spices, as well as *libanôtós* which occurs in a fragment of poetry also attributed to Sappho⁴, are Semitic loan-words attested for the first time in the Indo-European languages. It is of interest to see that these foreign imports and their use brought forth the same literary form in Greek

الآداب الشرعية

والمِنَحِ المرعيّة

Bahar, (397-408)

تأليف
شمس الدين أبي عبد الله محمد بن مفلح المقدسي الحنبلي
تغمده الله برحمته وأسكنه فسيح جناته

الجزء الثاني

Türkiye Diyanet Vakfı İslâm Ansiklopedisi Kütüphanesi	
Sayı No. :	10148-2
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الناشر

مؤسسة قرطبة

ت ٨٦٢١٥١ - القاهرة

أنواع ما يطيب به شما وتبخراً وتضمخاً ومنافعها ٣٩٧

على كل محتلم والسواك وأن يمس من طيب ما يقدر عليه « متفق عليه .
والملائكة عليهم السلام تحب الرائحة الطيبة وتتأذى بالرائحة الخبيثة كما في
قصة البصل والثوم والكراث ، والشياطين لعنهم الله عكسهم كما في الحديث
المشهور « إن هذه الحشوش محتضرة » أي بالشياطين .

وفي مسند البزار عن النبي ﷺ « إن الله طيب يحب الطيب ، نظيف يحب
النظافة ، كريم يحب الكريم ، جواد يحب الجود ، فتنظفوا أفناءكم وساحاتكم ،
ولا تشبهوا باليهود يجمعون الأكباء في دورهم « الكبا بكسر الكاف
مقصود الكناسة والجمع الأكباء مثل معي وأمعاء ، والكبة مثله والجمع
كبون .

(ذكر أنواع ما يتطيب به شماً أو بخوراً أو غير ذلك)

قال الأطباء أظفار الطيب هي أظفار تشبه الأظفار عطرة الرائحة حار
يابس في الثانية ملطف إذا تبخرت به المرأة الحيض ودخانها ينفع من بها
إختناق الرحم وإذا شرب حرك البطن .

(بان) حار يابس في الثانية وقيل حرارته في الثانية وقيل رطب وقيل
قشره قابض وهو يجلو ويقطع ويقلع الثآليل والكلف والنهق وينفع الأورام
الصلبة مع المرهم وينفع من الجرب والحكة والبثور ويسخن العصب ويقطع
الرعاف بقبضه ويفتح سدد الكبد والطحال ويلين صلابتهما ضماداً مع دقيق
الكرسنة وينفع من السوداء والبلغم قال ابن جزلة مثقال حبة منه يسهل البلغم
وهو يؤذى المعدة ويغثي ويصلحه الرازيانج وبدله وزنه فوه ونصف وزنه
قشور السليخة وعشر وزنه بسباسة .

(البنفسج) بارد في الثانية رطب في الثالثة يجلب النوم ويسكن
للصداع الحار .

(ريحان) قال الله تعالى :

كتاب الآداب الشرعية

٣٩٦

فصل

(في الراوائح الطيبة وفائدتها في الصحة)

وللرائحة الطيبة أثر في حفظ الصحة فإنها غذاء الروح والروح مطية
القوي والقوى تزداد بالطيب وهو ينفع الأعضاء الباطنة كالدماع والقلب
ويسر النفس ، وهو أصلق شيء للروح وأشدّه ملائمة ، ولهذا في مسلم
من حديث ابن عمر أنه عليه السلام تبخر بالألوة بفتح الهمزة وضمها ،
وهي العود الذي يتبخر به وبكافور يطرحه معها . وللنسائي والبخاري في
تاريخه من حديث عائشة أنه عليه السلام كان يطيب بالمسك والعنبر ، وفي
الصحيح أو في الصحيحين أنها طيبته لإحرامه ولحله منه بالمسك .

روى النسائي عن الحسين بن عيسى القومسي عن عفان عن سلام بن
سليمان أبي المنذر عن ثابت عن أنس قال قال رسول الله ﷺ « حبيب إلى
من الدنيا النساء والطيب ، وجعلت قرّة عيني في الصلاة » ورواه أحمد
عن عفان أو عن غيره عن سلام ، وسلام قال ابن معين لا بأس به وقال
أبو حاتم صدوق ، وقال العقيلي لا يتابع على حديثه ثم ذكر هذا الحديث
قال وقد روى من غير هذا الوجه بسند فيه لين أيضاً ، ورواه النسائي أيضاً
عن علي بن مسلم عن سيار بن حاتم عن جعفر بن سليمان عن ثابت عن أنس
فذكره إسناد جيد ، وفي مسلم من حديث أبي هريرة أنه عليه السلام قال
« من عرض عليه ريحان فلا يردده فإنه طيب الريح خفيف المحمل » .

ولأحمد وأبي داود والنسائي « من عرض عليه طيب فلا يردده فإنه
خفيف المحمل طيب الرائحة » وفي البخاري عن أنس أنه ﷺ كان لا يرد
الطيب . وروي هؤلاء إلا البخاري عن أبي سعيد أن النبي ﷺ قال في المسك
« هو أطيب طيبكم » وعنه أيضاً أن النبي ﷺ قال « غسل الجمعة واجب

صَبْحُ الْأَعْنَى

في
صِنَاعَةِ الْإِنْسَانِ

Beirut, (139 - 139)

أحمد بن علي القلقشندي

المتوفى ٨٢١ هـ - ١٤١٨ ميلادية

Janet Vakh
Kil S

شَرَحَهُ وَعَلَّقَ عَلَيْهِ وَقَابَلَ نَصُوصَهُ

محمد حسين محسن الدين

الجزء الثاني

- خُطِبَتْ وَقُوِّنَتْ عَلَى طَبْعَةِ دَارِ الْكُتُبِ الْمِصْرِيَّةِ
وَعَلَى الْمَصَادِرِ الْأَسَاسِيَّةِ لِلنُّصُوصِ الْكُتَابِ .
- مُذَيَّلَةٌ بِاسْتِدْرَاكَاتٍ وَتَضْوِيَّاتٍ وَهَوَامِشٍ تَوْضِيحِيَّةٍ .
- مُسْتَفِيدَةٌ مِنَ الدَّرَاسَاتِ وَالْأَبْحَاثِ الَّتِي كُتِبَتْ حَوْلَ
هَذَا السِّقْرِ الْقَيْسِ مِنْ مَكْتَبَتِنَا الْعَرَبِيَّةِ .

دار الكتب العلمية

بيروت - لبنان

صباح الاعنى ١٣٣

الاصنف الثالث

العود

قال التميمي: أخبرني أبي عن جماعة من أهل المعرفة أنه شجر عظام تنبت ببلاد الهند، فمنه ما يجلب من أرض قشمير^(١) الداخلة؛ من أرض سرنديب، ومن قمار^(٢)، وما اتصل بتلك النواحي؛ وأنه لا تصير له رائحة إلا بعد أن يعتق؛ ويُقشَّرُ فإذا قشر وجفف حمل إلى النواحي حينئذ.

قال: وأخبرني بعض العلماء به أنه لا يكون إلا من قلب الشجرة، بخلاف ما قارب القشر كما في الأبنوس والعناب ونحوهما من الأشجار التي داخلها فيه دهانة، وما في خارجها خشب أبيض؛ وأنه يقطع ويقلع ظاهره من الخشب الأبيض، ويدفن في التراب سنين حتى تآكل الأرض ما داخله من الخشب ويبقى العود لا تؤثر فيه الأرض.

وحكى محمد بن العباس: أنه يكون في أودية بين جبال شاهقة، لا وصول لأحد إليها لصعوبة مسلكها، فيتكسر بعض أشجاره أو يتعفن بكثرة السيول لممر الأزمان، فتأكل الأرض ما فيه من الخشب ويبقى صميم العود وخالصه فتجره السيول وتخرجه من الأودية إلى البحر فتقلده الأمواج إلى السواحل، فيلتقطه أهل السواحل ويجمعونه فيبيعونه.

ويقال: إنه يأتي به قوم في المراكب إلى ساحل الهند فيقفون على البعد بحيث لا ترى أشخاصهم، ثم يطلعون ليلاً فيضعونه بفرصة تلك البلاد، ويخرج أهل البلد نهاراً فيضعون بإزائه بضائع ويتركونها إلى الليل، فيأتي أصحاب العود فمن أعجبه ما بإزاء متاعه أخذه وإلا تركه، فيزيدونه حتى يُعجبه فيأخذه، كما

(١) وهي: كشمير.

(٢) قال في معجم البلدان: «قمار أو قامرون: موضع في بلاد الهند، يُعرف منه العود النهائية في الجودة».

الجزء الثاني ١٣٢

قرب عمان تشتريه منهم أصحاب المراكب.

السادس: المغربي - وهو ما يؤتى به من بحر الأندلس فتحمله التجار إلى مصر؛ وهو أرق الأنواع كلها، وهو شبيه في لونه بالعنبر الشحري. قال التميمي: ويغالط به فيه.

قال التميمي: ومن العنبر صنف يعرف بالنَّد؛ ونقل عن جماعة من أهل المعرفة أن دابة تخرج من البحر شبيهة ببقر الوحش فتلقيه من دبرها فيؤخذ وهو لين يمتد، فما كان منه عذب الرائحة حسن الجوهر فهو أفضله وأجوده. قال: وهو أصناف: أحدها الشحري وهو أسود فيه صفرة، يخضب اليد إذا لميس، ورائحته كرائحة العنبر اليابس، إلا أنه لا بقاء له على النار، وإنما يستعمل في الغوالي إذا عز العنبر السلاهي. ومنه: الزنجي وهو نظير الشحري في المنظر ودونه في الرائحة؛ وهو أسود بغير صفرة. ومنه: الخمري وهو يخضب اليد وأصول الشعر خضياً جيداً، ولا ينفع في الطيب.

قلت: أما المعروف في زماننا بالعنبر مما يلبسه^(١) النساء فإنما يقال له:

النَّد، وفيه جزء من العنبر، قال في نهاية الأرب^(٢): وهو على ثلاثة أضرب:

الأول: المثلث - وهو أجودها وأعطرها، وهو يركب من ثلاثة أجزاء: جزء من العنبر الطيب، وجزء من العود الهندي الطيب، وجزء من المسك الطيب.

الثاني - وهو دونه؛ أن يجعل فيه من العنبر الخام الطيب عشرة مثاقيل، ومن النَّد العتيق الجيد عشرة مثاقيل، ومن العود الجيد عشرون مثقالاً.

الثالث - وهو أدناها؛ أن يؤخذ لكل عشرة مثاقيل من الخام عشرة مثاقيل من النَّد العتيق وثلاثون مثقالاً من العود، ومن المسك ما أحب.

(١) مراده باللبس: الاستعمال.

(٢) «نهاية الأرب في فنون الأدب» للنويري المتوفى سنة ٧٣٢ هـ. (كشف الظنون: ١٩٨٥).

دانشنامه جهان اسلام، (۲)، تهران، ۱۳۷۵

IRCICA 36492

بخور و بخوردان

۴۴۶

الابنية عن حقایق الادوية، به تصحیح احمد بهمنیار، چاپ حسین محبوبی اردکانی، تهران ۱۳۴۶ش؛

Pedanius Dioscorides, *The Greek herbal of Dioscorides*, illustrated by a Byzantine A.D. 512, tr. John Goodyer A.D. 1655, ed. R. T. Gunther, Oxford 1934; É. Littré, *Dictionnaire de médecine, de chirurgie, de pharmacie ...*, 17th ed., Paris 1893; Immanuel Löw, *Die Flora der Juden*, Wien 1924-1934; Maimonide, *Šarḥ asmā' al-'uqqār* (*L'explication des noms de drogues*), un glossaire de matière médicale composé par Maimonide, tr. & ed. Max Meyerhof, Cairo 1940.

/ هوشنگ اعلم /

بخور و بخوردان، بخار یا دود حاصل از تبخیر یا سوزاندن مواد خوشبو و ظرف مخصوص این کار. استفاده از بخور برای ایجاد بوی خوش یا استفاده‌های مذهبی، درمانی و نظایر آن قدمتی تاریخی دارد. از روزگار باستان تا کنون در مراسم و آیینها مواد و روغنهای خوشبو، از جمله چوبها و صمغهایی نظیر اسپند، عود، چوب انار، سرو، صندل، عنبر، کندر، لُبَان یا لوبان یا ترکیبی از آنها را می‌سوزانند یا تبخیر می‌کنند (دهخدا، ذیل «اسپند»؛ آذرگسب، ص ۴۱؛ رضی، ذیل «هذائیت»؛ حکیم مؤمن، ص ۴۷۷؛ گروپ، ج ۲، ص ۱۵۲).

در دین زرتشت سوزاندن چوبهای معطر در مراسم مذهبی، جشنها و خانه‌ها، برای خوشنودی ایزدآذر و دور کردن دیوان و شیاطین و عناصر فساد مرسوم بوده است (رضی، ذیل «آتر - آتش»، ج ۱، ص ۳، ۸، ذیل «هذائیت»، ج ۳، ص ۱۴۴۱ به نقل از وندیداد). این رسم اکنون نیز در میان زرتشتیان رواج دارد (اورنگ، ص ۴۹، ۵۱، ۱۰۳) و در آتشکده‌های آنها، در ساعاتی معین از روز با مراسمی خاص، چوبهای خوشبو سوزانده می‌شود (گروپ، ج ۲، ص ۱۵۲). در مراسم دینی یهودیان استفاده از بخور مواد خوشبو، بویژه کندر، بسیار رایج بوده و در عبادتگاههای آنان مکانهای مخصوصی برای آماده‌کردن و سوزاندن این مواد وجود داشته است (هاکس، ذیل «بخور»، «قربان»، «مجمره»، «مذبح»، «هیكل»؛ دورانت، ج ۱، ص ۳۷۵). اما این کاربرد بخور، در میان یهودیان تداوم نیافته است (آمریکانا، ذیل «Incense»؛ «دایرةالمعارف دین»^۱، ذیل «Incense»). در کلیساهای رومی و مراسم مذهبی مسیحی تا سده چهارم میلادی، یعنی زمان کنستانتین امپراتور روم، نشانی از این آیین دیده نمی‌شود («دایرةالمعارف دین»^۲، همانجا؛

دورانت، ج ۳، ص ۷۵۷). امروزه نیز مسیحیان برای خوشبو کردن کلیساها در مراسم مذهبی از مواد معطر استفاده می‌کنند. در دین اسلام، سوزاندن بخور اهمیت مذهبی خاصی ندارد و صرفاً برای پراکندن بوی خوش در اماکن مقدس به کار می‌رود. البته امروزه مسلمانان هند در مراسمی چون پیوند زناشویی، تولد و جشنواره‌های مذهبی و نیز صوفیان در مراسم خود بخور می‌سوزانند («دایرةالمعارف دین»^۳، همانجا).

بخوردان. در فرهنگها و متون مختلف با نامهایی چون آتشدان، بخورسوز، بخوره، بوی‌سوز، عطرسوز، عودسوز، عودگردان، مَذْحِنَه، مذبح، مجمر، مجمره، و منقل از آن یاد شده است. از هزاره سوم تا هزاره اول ق م در مناطق تحت سلطه ایلامیها، بخوردان در نقوش برجسته و بر مهرها تصویر شده است (صراف، تصاویر ۱-۲، ۶-۷؛ آمیه، تصویر ۸۲). از هزاره دوم ق م از شمال غرب ایران بخوردانی سفالی (گلاک، ص ۴۶ و تصویر سمت راست ص ۴۹ که در پانویس آن به اشتباه به هزاره اول ق م نسبت داده شده است) و از هزاره اول ق م از قزاقستان دو بخوردان مفرغی به دست آمده است (بلیتسکی، تصاویر رنگی ۲۵ و ۲۷). آثار دوران ماد در نیمه اول هزاره نخست ق م نیز نشان دهنده کاربرد بخور در مراسم گوناگون است (هرتسفلد، ص ۲۰۴، شکل ۳۱۳، ص ۲۰۶، شکل ۳۱۶؛ استروناخ، ۱۹۷۱، ص ۱۷۵ و تصویر VI). از دوره هخامنشی دو نقش برجسته از داریوش و خشایارشا در تخت جمشید باقی است که در آنها دو بخوردان مشابه حجاری شده است. ظرافت حجاریها نشان می‌دهد که این بخوردانها از فلزی گرانبها ساخته شده‌اند (تصویر ۱ مقاله حاضر؛ اشمیت، لوحه‌های ۹۹ و ۱۲۱ و ۱۲۲). آتشدانهای نقش برجسته آرامگاههای داریوش و خشایارشا در نقش رستم و تخت جمشید با آتشدانهای سنگی یافت شده در پاسارگاد مشابه است (گیرشمن، ج ۱، تصاویر ۲۳۲ و ۲۷۹؛ مظاهری، تصویر ص ۴۱؛ هرتسفلد، تصویر LXXIV؛ استروناخ، ۱۹۷۸، ص ۱۴۱، ۱۴۵، شکل ۷۲، تصویر ۱۰۷b). این آتشدانها از سه بخش ساخته شده و پایه و بخش فوقانی هر کدام چهار طبقه است. در بخش فوقانی یکی از آنها که به طور کامل پیدا شده، محل افروختن آتش به شکل ظرفی مخروطی گود شده است (استروناخ، ۱۹۷۸، شکل ۷۲ چپ). آیین بخورپراکنی در سراسر قلمرو اشکانی نیز رواج داشته است. از نمونه‌های این دوره، نقش بخوردان بر مهری از نسا (سده اول ق م تا سده‌های دوم و سوم)، بر لوحی گلی از شوش (سده اول و دوم ق م) و در حجاریهای مسجد سلیمان (سده دوم ق م) و حجاری بیستون (سده اول تا سوم م) است (تصاویر ۲ و ۳ مقاله حاضر؛

Bibliography: J. L. Ecklund, *Marriage, seaworm, and song: ritualized responses to cultural change in Sasak life*, diss. Cornell University 1977 (unpublished); idem, *Sasak cultural change, ritual change, and the use of ritualized language*, in *Indonesia* (Cornell Modern Indonesia Project), no. 24, 1977, 1-25; S. Cederroth, *Religiösa reformations-rörelser på Lombok*, paper presented at the Scandinavian Conference on Indonesian and Malaysian Studies, Kungälv 1977 (unpublished); — Language: A. Teeuw, *Lombok: een dialect-geografische studie* (= *Verhandelingen van het Koninklijk Instituut voor Taal-, Land- en Volkenkunde*, 25), The Hague 1958. (O. SCHUMANN)

○ LORCA [see LURKA].

— LOS PEDROCHES [see FAḤṢ AL-BALLŪT].

✱ LOT [see LŪṬ].

⊕ LUBĀN (*lūbān*, *lawbān*) is frankincense, the dried-up sap produced by notching some kinds of *Boswellia*, obtained in Somalia and South Arabia in the form of yellow resin-grains. As is well-known, the term is Old Semitic: Assyr. *lubānu*, old South Arabian *l-b-n*, Hebr. *lbonā*, Aram. *lebontā* (*lebottā*), Eth. *lābān*, *λιβανωτός*, Latin *olibanum*, with derivations in the Romance languages. The name can be traced back to the original meaning "white" (Hebr. *lābān*), after the colour of the fresh, milk-white gum-resin, exuded abundantly from the notched trunks and after some time solidified into yellow grains, which are then detached from the trunks or gathered from the soil. At least as often as *lubān*, there appears in Arabic the synonym *kundur*, according to most authors of Persian origin, but perhaps to be derived from *χόνδρος* "grain"; this term may have become an independent form, derived from the combination *χόνδρος λιβάνου* "frankincense-grain".

The frankincense trade is extremely old and has been treated repeatedly—but at times inadequately—in comprehensive descriptions. In the first place, frankincense—together with myrrh—formed the richness of the old South-Arabian states of the Minaeans and Sabaeans; the loss of the frankincense monopoly was one of the main causes of the collapse of this commerce fundamental for their existence, and consequently of cause of their downfall around the middle of the 6th century A.D. (see the good survey by W. W. Müller, *Alt-Südarabien als Weihrauchland*, in *Theol. Quartalschrift*, cxlix [1969], 350-68). The Arabic sources point in the same direction. According to al-Aṣmaʿī, three items were found only in the Yemen, and indeed abundantly there: *al-wars* (*curcuma*, a dye-plant), *al-lubān* and *al-ʿaṣb* (*Poterium*) (cited in al-Dīnawarī, *The book of plants*, ed. B. Lewin, Wiesbaden 1974, no. 627). According to a Bedouin from ʿUmān (in al-Dīnawarī, *Le dictionnaire botanique*, ed. Hamidullah, Cairo 1973, nos. 971, 979), frankincense is only found in al-Shihr, in Shihr ʿUmān in fact, as a small briar which reaches up to two cubits high and which grows only in the mountains; its leaves resemble those of the myrtle (see *As* in Suppl.), as do its fruits, which have a bitter (read *marāra* instead of *ḥarāra*) taste; its resin, also used for chewing and called *kundur*, wells up in some places struck with the hatchet and stays there until harvest. According to al-Dimashqī, *Nuḥḥba*, ed. Mehren, St. Petersburg 1866, 87, frankincense is obtained on Suḳuṭrā (Socotra) and in some regions of the Yemen. After Matt. ii, 11, al-Ṭabarī, i, 729, 1, reports verbatim that the Magi brought gold, frankincense and myrrh. Lice infestation is caused by two different things: by taking excessive delight

in dried figs and by burning frankincense (Ibn Ḳutayba, *ʿUyūn*, iii, Cairo 1930, 294).

The best frankincense comes from the male plant (*lubān dhakar* = the *λιβανωτός ἄρρηγος* of Dioscorides); it is white and firm and has round grains which are gummy when broken open. The white frankincense (*lubān abyad* = *λιβανωτός λευκός*) is also named as a noble variety; finally are to be mentioned the Javanese (in fact, Sumatran) frankincense (*lubān djāwī*), i.e. benzoin, obtained from various kinds of styrax-trees whose fumes are said to remove a cold in the head, and the reddish, Indian frankincense. When, however, the geographers speak continuously of the frankincense of Arabia, this statement is based more on a literary topos than on knowledge of things on the spot. The critical Marco Polo remarks explicitly that he does not want simply to repeat these literary accounts, but to report the personal information of the frankincense-traders. According to these last, frankincense was particularly cultivated in two regions of South Arabia in "Escier"—apparently al-Shihr—and "Dufar", the ancient Zafār. In al-Shihr, he further reports, the lord confiscates the entire harvest, pays the cultivator a low price, and sells it to the traders at a sixfold price (for this report, see W. Heyd, *Histoire du commerce du Levant*, ii, Leipzig 1886, 614-16). Some other places named by the geographers which produced frankincense lie close to each other and belong to the region of Mahra [q.v.]. The fact that at times scanty production of frankincense could not always satisfy the sustained and high demand in East and West, led to numerous adulterations (S. Labib, *Handelsgeschichte Agyptens im Spätmittelalter*, Wiesbaden 1965, 334). Nahray ben Nissim, a Jewish scholar, merchant and banker, called *al-tādjir al-maghribi* and well-known from the Geniza documents, carried on a widespread trade in frankincense in the Mediterranean area in the 5th/11th century (S. D. Goitein, *A Mediterranean society*, i, Berkeley and Los Angeles 1967, 154).

The medicinal use of frankincense, described extensively by Ibn al-Bayṭār, goes back for the greater part to Dioscorides, from whom was also borrowed without examination the enumeration of several kinds, together with their Greek names. According to him, frankincense has a heating, drying and astringent power, expels darkening of the pupils, causes wounds to scar over and checks haemorrhage. It softens virulent abscesses and, applied in combination with vinegar and pitch, removes warts and eruptions. It is good for earaches and, combined with other medicines, for illnesses of the trachea and of the intestines. For healthy people, it can be dangerous, for it may cause madness and, if drunk with wine, even death. Frankincense is burned by putting it in a mussel-shell and setting fire to it. Shortly before it is fully consumed it must be covered up so that the fire is smothered completely in order that the frankincense is charred and not reduced to ashes; it can then more easily be pulverised. Various supplementary observations were made by the Arab physicians, such as the following: frankincense "burns" pathological phlegms, dries up excessive humours in the breast, strengthens the stomach and warms up a cold liver. Dissolved in water and taken daily, it increases the reasoning power and eliminates loss of memory. It checks diarrhoea and vomiting, calms palpitation of the heart but can also lead to mental disturbances. When chewed, it strengthens the gums. Its bark is good for haemorrhages and intestinal ulcers. The bark of the frankin-

deki vasıtalarını en randımanlı şekilde çalıştırmak suretiyle azamiye çıkarırlar. Tabii, işçi talebi artar. Fakat randımanın düşmesine mukabil ücretler, rant, faiz ve hammadde fiyatları yükselir. Bu yükselme nispeti, çok kere, mamul madde fiyatlarındaki artışa nazaran, daha seri olur. Nihayet kredi mekanizması, fiyatların daha fazla yükselmesine imkân verince ticari faaliyetlerde gerileme ve B. safhası başlamış olur.

C. B. in meteorolojik âmillere izahı: B. iktisat dışı âmillere dayanarak izah edenlerin başında William Stanley Jevons (1835-1882) gelir. Bu müellif, B. ların zuhuruna, güneş devreleri (solar cycles) nin sebeb olduğunu iddia eder. Teorisini, 1721-1878 yılları arasında ticari temev vüçlerin tarihçesi ve İngilterede güneş lekelerinin görülme tarihleri üzerinde yaptığı etüdlere istinaden kurmuştur. Fikrine göre, güneş lekeleri, güneş şualarının fazlalaşmasına ve bol yağmurun yağmasına sebeb olmakta neticede bol zirai mahsul de B. tevlid etmektedir. Kolombiya üniversitesi profesörlerinden H. T. Moore ve Jevons'un oğlu, güneş lekeleri devresinin süresini 3, 5, 8 ve 10 sene olarak kabul etmişlerdir.

Bunların fikrine göre, ziraatin iyi ve kötü hâsılatı, sermaye talbine, faiz hadlerine ve halkın haleti ruhiyesi üzerine birtakım tesirler yapacak, bu sebeple zirai istih-salattaki temevvüçler B. ları doğuracaktır.

D. John Maynard Keynes'in (1883-1946) B. teorisi: Kanaatine göre, müteşebbisin gayesi kâr temin etmektir. Bu sebeple âzami hâsıla temin edecek şekilde çalışır. Çalışmasında, mütehavvil şu üç unsuru: müstehlkin meylini, yeni sermaye yatırımlarının muhtemel verimini ve faiz hadlerini etüd etmek zorundadır. Umumi olarak, gelir arttıkça masraflar da çoğalır, ancak bu çoğalma, gelirin artışı nispetini tecavüz edemez. Gelir ise, iş sahalarına yapılacak yatırımla artabilir. Yatırım faaliyetine de, istihlâkte bir artış olmadıkça gidilemez, gidilirse fazla istihsal edilen mallar için talep bulunamayacaktır. Böyle bir talebin olması, tasarrufun mevcut bulunmasına bağlıdır. Müteşebbis bu vaziyette parasını faiz haddine göre ayarlayacaktır. Faizde yükselme olunca istihsal faaliyetine yatırılan sermaye miktarında azalma ve iş sahalarında bir daralma olur. Faiz haddi düşünce, aksi neticeler doğar. Zira faiz hadleri, paraya olan talebin şiddetine göre değil, âdet ve ananelerin tesirlerine tâbi olarak tekerrür eder.

Keynes'in kanaatine göre, yüksek bir faiz seviyesi, sermaye yatırımlarını azaltır ve nakit halinde saklanan para miktarını (hoarding) çoğaltır. Keynes, büyük ölçüde bayındırlık projelerini ve faiz hadleri ile beraber para politikasının da yeni esaslara göre ayarlanması lâzımgeldiği fikrini kuvvetle desteklemektedir.

BUHRAN [Tıp] (Fr. Crise), bir hastada ateşin birkaç saat içinde süratle düşmesi. B. halinde, sıcaklık derecesinin düşmesiyle birlikte nabız sayısı da azalır ve hasta terler. Zatürree gibi birçok intanî hastalıklarda ateş ekseriyetle B. halinde düşer. B. dan önce az süren bir hararet yükselmesi ve sayıklama hali görülür ki buna «buhran bozuklukları» denir.

BUHRAN VERGİSİ; Türkiyede devlet bütçesi ihtiyaçları için 30 Şubat 1951 tarihli ve 1890 sayılı kanun gereğince «iktisadi buhran vergisi» adıyla ihdas edilen bir vergi. Resmî ve hususi müesseselerde aylık ve ücretle çalışanların almakta oldukları paralardan müterakki şekilde ve yüzde 10-24 nispetinde alınmış olan ve sonradan kazanç vergisinin öteki mükellefleri ile bina vergisine de muhtelif

nispetlerde teşmil edilen bu vergi, 3 Haziran 1949 tarihli ve 5421 sayılı kanunla konan gelir vergisinin 1950 ve 1951 de kısım kısım uygulanmağa başlaması üzerine ücretlerle kazanç vergisine tâbi öteki kazançlar üzerinden kaldırılmış ve bugün bina vergisine munhasır ek bir vergi halinde kalmıştır.

Vergiye «iktisadi buhran vergisi» adı verilmesi, bu verginin 1931 de kendini gösteren iktisadi buhranın devlet bütçesi müvazenesinde açtığı gediği kapatmak maksadiyle ihdas edilmesinden ileri gelmiştir. Fakat sonradan iktisadi buhranın hafiflemesine rağmen bu verginin alınmasına 20 sene devam edilmiştir.

Bugün 31 Mayıs 1932 tarihli ve 1936 sayılı kanun gereğince bina vergisi üzerinden «buhran vergisi zammı» adı altında alınmasına devam edilen vergi, sahibinin oturduğu meskenlerde, bunlardan alınmakta olan bina vergisinin altıda biri; kiraya verilen evlerle diğer yapılarda üçte biri nispetindedir. Bina vergisi, binaların hükümetçe yapılan tahririnde takdir edilen yıllık gayrisafi gelirlerinin yüzde on ikisi nispetinde olduğuna göre, bu zam, vergi nispetini, sahibinin oturduğu evlerde yüzde on altıya ve öteki binalarda yüzde yirmiyeye yükseltmektedir.

BUHTURİ, Ebû Ubâdet-il-Velid b. Ubeyd (takr. 819-897), Abbasiler devrinde yetişmiş Atap şairi. Tay kabilesinin Beni Buhtur aşiretindedir. Menbic'de (veya Menbic yöresindeki Zerdefne köyünde) doğmuş, yine orada veya Halepte ölmüştür. Bir kaside şairi olarak ün almış bulunan ve kabilesinin ileri gelen kişilerine kaside yazmakla işe başlayan B., ilkin Halife El-Vâsık'ın veziri Muhammed b. Abdülmelik b. iz-Zeyyât tarafından korunmuştur. B. nin, Mütevekkil'in saltanatı zamanında (847-861), ilk defa olarak, saray şairliğine getirilmesi olması muhtemeldir. Önemli sayılabilecek her olay vesilesiyle hükümdara ve el-Feth b. Hakan, v. b. gibi devrin ileri gelenlerine medhiye yazmayı meslek edinmiş bulunan B., Mütevekkil'in ölümünden sonra Muntasır, Müstaîn, Mu'tez, Mühtedi ve Mu'temid devirlerinde de (861-892) saray şairliği vazifesine devam etmiş, hususiyile Mu'tez'in çok gözüne girmiş, fakat Mu'temid'in saltanatının son yıllarında eski nüfuzunu kaybetmiş görünmektedir. B., saray şairi olması dolayısıyla, vezir, komutan, vali, divan ve saray ileri gelenleri ile ilim ve edebiyat adamları gibi devrin ileri gelen kişilerinin ve birtakım olaylardan bahsetmiş olduğu için, şairleri tarih bakımından da önemlidir. Bir kaside şairi olan B., birtakım şahsî menfaatler temini maksadiyle yazdığı medhiyeleri kabul edilmeyince, bu yolda çalışan diğer şairler gibi, aynı kimse hakkında hicviye de yazmıştır. Ölürken, hicviyelerinin yok edilmesini vasiyet etmiş ise de, bunların çoğu saklanabilmiştir.

Divanı (İst. 1300) ve *Hamâsesi* (Leiden 1909) vardır.

BUHUR [veya Behur; = tütsü] (Fr. Encens, İng. Incense, Alm. Weihrauch), bir tören maksadiyle ateş üzerine atılarak yakılan kokulu maddeler. Hoş kokulu şeylerin dinî merasimlerde yakılması bir âdet haline gelmişti. Bütün dünya milletlerinde görülen bu âdet, folklorlarda önemli bir yer tutar. B. için çeşitli cisimler yakılabilir: ağaç parçaları, kabuklar, otlar, kokulu bitkiler, tohumlar, çiçekler, meyvalar ve hattâ kokulu topraklar. Ahd-ı Atık'te ve başka kutsal kitaplarda adı geçen B. lar şunlardır: 1. Ağaçlar: öd ağacı ve şeker kamışı sapı, 2. Kabuklar: tarçın ve Çin tatlı-

Peking for inner Mongolia, and Urga for outer Mongolia. In practice the Lamas occasionally contrive to evade this form of nomination. In the exercise of its control over these 're-incarnations' the Chinese Government arrogates to itself powers which if taken seriously would imply direct interference with the soul, or its Buddhist equivalent. Thus the *Peking Gazette* of 31st March 1877, in denouncing a recalcitrant 're-incarnating' Lama who had insulted the Imperial Chinese Resident at Lhasa and carried off the official seals, intimates that the Emperor as 'Son of Heaven' had decreed as a punishment that 'his [the Lama's] soul should not be allowed to transmigrate at his decease.'

The fiction which credits the Dalai Lama of Lhasa with being the perpetual incarnation of the greatest and most popular of the Buddhist divinities, Avalokitesvara (*q.v.*), the God of Mercy and the special object of the popular *Om-mani* magical formula, has been shown by the present writer to have been the invention of that Dalai Lama who was the first of the Lhasa priest-kings, namely Lo-bzang Gya-mts'o (A.D. 1615-1682). He posed thus as a priest-god as well as temporal sovereign. Contemporary evidence of this title and position is found also in a letter from the Jesuit missionary (J. Grueber) then resident in Lhasa in the middle of the 17th cent., which refers to this Dalai Lama as 'that devilish God-the-Father who puts to death all such as refuse to adore him.'

LITERATURE.—W. W. Rockhill, 'Dalai Lamas and their Relations with the Manchu Emperors,' *T'oung-Pao*, xi (Leyden, 1910) 1 ff.; L. A. Waddell, *Buddhism of Tibet*, London, 1895, p. 230 ff.; 'Chinese Imperial Edict of 1808 A.D. on the Grand Lamas of Tibet,' *JRAS*, 1910, pp. 69-86, *Lhasa and its Mysteries*, London, 1906, pp. 27-36. L. A. WADDELL.

INCENSE.—The custom of burning sweet-smelling substances in religious ceremonies, or sometimes as a separate rite, has been of wide-spread occurrence, especially in the higher religions.

1. **Kinds of incense.**—While frankincense and other gum resins are more strictly to be called incense, many other substances have been used for the purpose of producing an agreeable odour when burned—various kinds of wood or bark, branches or roots of trees, herbs and odoriferous plants, seeds, flowers, fruits, aromatic earths, etc.

Of substances referred to in the Bible which are known to have been used by the Hebrews and other peoples as incense there are: (1) *Wood*—aloes (eagle-wood), Ca 414, cf. Dioscor. i. 21; sweet cane, Jer 60. (2) *Bark*—cassia, Ps 458; cinnamon, Rev 1813. (3) *Roots*—costus, Ex 3024. (4) *Gum resins*—balm (7 mastic), Gn 3725; Ezk 2717; tragacanth (spicery), Gn 3725; balsam (spices), Ca 5113; bdellium, Gn 212, cf. Dioscor. i. 80; galbanum, Ex 3024; ladanum (myrrh), Gn 3725; stacte, Ex 3024; frankincense, Ex 3024. (5) *Flower products*—saffron, Ca 414; spikenard, Ca 414. (6) *Animal products*—onycha (the operculum of a marine mollusc), Ex 3024.

The sacred incense used in later Hebrew ritual was a compound of stacte, onycha, galbanum, and pure frankincense, seasoned with salt and reduced to a fine powder.¹ In still later times—the Herodian period—Josephus records that thirteen ingredients (sweet-smelling spices) were used.² Plutarch gives a list of sixteen ingredients used by the Egyptians in preparing *kuphi*—honey, wine, raisins, sweet rush, resin, myrrh, frankincense, seselis, calamus, asphalt, thryon, dock, both kinds of arceuthids, cardamum, and orris root.³ In both cases the compounding was of ritual importance and a matter of mystery. Sacred books were read aloud while the *kuphi* was being mixed.

Frankincense (Gr. *Ἀψαράς*, Heb. *ῥῥῥῥῥῥ*, Mod. Lat. *olibanum*, *libanus* in Vulg. of Sir 24²² 29¹⁶) is the gum resin of trees of the genus *Boswellia* (*B. Carterii*, *B. Frereana*, *B. Bhua-Dajiana*), and is exported from Somaliland, probably the Punt of Egyptian inscriptions. Pliny⁴ refers to it as a product of Arabia (Hadramaut), and says that the Sabæi alone behold the tree which produces it, and of these only 3000 families by virtue of hereditary succession. The trees are sacred; and, while pruning the trees or gathering the resin, men must

¹ Ex 3024. ² *EJ* v. v. 5. ³ *HN* xii. 14 ff.

⁴ *de Ind.* 81.

not contract pollution by sexual intercourse or contact with a corpse. It is carried to Sabota, where the priests claim a tithe of it in honour of their god Sabis; until this is paid, none of it may be disposed of. Herodotus⁵ speaks of winged serpents which guard the trees and are driven off by burning styrax. It was one of the ingredients of Jewish incense,⁶ as it is still of that used in Christian ritual. Classical authors, in speaking of frankincense, usually refer to its exporting place as the seat of its origin, e.g. Syria and Phœnicia.

2. **Purpose of incense.**—The use of incense is connected primarily with the psychical aspects of the sense of smell. Pleasant-smelling perfumes, in whatever way they are obtained, are agreeable to men. They were offered to honourable persons in ancient times, or diffused over the roads on which they travelled.⁷ Incense was also used at banquets as an agreeable accompaniment of food and wine. Hence it was supposed that such perfumes would also be agreeable to gods or spirits, on the same principle as that by which foodstuffs which men liked were offered to them. This is obvious when we consider that the smoke of sacrifice is pleasing to the gods, and that they are thought to seize on 'the unctuous smoke' with delight,⁸ and that flowers are commonly offered to the gods, or scented oils applied to their images.⁹ The bodies of the dead are also decked with flowers, aromatic oils, and perfumes for the same reason. Disagreeable odours, being obnoxious to men, were also obnoxious to supernatural beings. Hence it came to be thought that beneficent gods not only liked, but actually themselves possessed, pleasant odours.

Egyptian texts illustrate these beliefs. Isis has a wonderful odour which she can transfer to others, e.g. to the dead. Osiris transfers his odour to those whom he loves. At the anointing of the corpse, the 'perfume on the head of Horus' is besought to place itself on that of the deceased.¹⁰ Similar ideas are found in Mandæan belief. The Light beings have a perfume which invigorates those who smell it.¹¹ In Persian belief the righteous after death are said to have a sweet odour.¹² The region of the gods, the place of bliss, has also a sweet perfume. The Polynesian *Rohutu* is free from all noxious odours.¹³ In the Persian texts the deceased, approaching the blissful regions, is surrounded by a perfumed breeze.¹⁴ Sweet odours form one of the characteristics of Hindu and Buddhist Paradises, and, where Divine beings or saints descend to the malodorous hells, they change the evil odour to sweet perfume.¹⁵ Evil odours characterize the Persian regions of punishment, as well as the Muhammadan and Christian hell.¹⁶ The idea that Paradise has a pleasant odour is found in Jewish, Christian, and Gnostic writings. Thus in the regions of the eastern Paradise and the 'garden of righteousness' visited by Enoch there are many fragrant aromatic trees, i.e. those which yield material for incense, and among them one 'with a fragrance beyond all fragrance.'¹⁷ The idea that Paradise is a region of fragrant perfume appears already in the *Apoc. of Peter*, and is found in most accounts of visits to or visions of the Other-World, while the same idea is referred to in inscriptions on Christian grave-stones.¹⁸ Spiritual persons and martyrs also possess this fragrance.¹⁹ In Gnostic writings this perfume is connected with

¹ iii. 107.

² Ex 3024.

³ Dn 246; Herod. vii. 54.

⁴ Cf. G. Maspero, *The Dawn of Civilization*, London, 1894, p. 681; Lucian, *de Sacr.* 9.

⁵ W. Ellis, *Polyn. Researches*, London, 1831, i. 238. 351; Maspero, p. 679 (Babylonian); this caused the actual persons of the gods to be anointed.

⁶ E. A. W. Budge, *Osiris and the Egyp. Resurrection*, London, 1911, i. 6, 78, 103; H. M. Tirard, *The Book of the Dead*, do. 1910, p. 32.

⁷ W. Brandt, *Mand. Schriften*, Göttingen, 1893, p. 114.

⁸ *Hatōzi Nask*, ii. 10.

⁹ Ellis, i. 245.

¹⁰ *Hatōzi Nask*, ii. 7.

¹¹ Cf. *ERE* iv. 652a.

¹² M. Haug, *Essays on the Sacred Language, Writings, and Religion of the Parsis*, London, 1907, p. 222; E. W. Lane, *Modern Egyptians*, do. 1846, i. 101; J. A. MacCulloch, *Early Christian Visions of the Other-World*, Edinburgh, 1912, *passim*.

¹³ *En* 243ff.; for other examples, cf. *Slav. En.* 82; *Syr. Bar.* 297; *Apoc. Mos.* 20, 38, 46.

¹⁴ MacCulloch, *op. cit.* p. 11, and *passim*; A. Dieterich, *Nekyia*, Leipzig, 1893, p. 34.

¹⁵ Cf. *Apocryphal Acts*, *passim*; *Martyrdom of S. Polycarp*, § 16; Eusebius, *HE* v. 1 (martyrs of Lyons and Vienne are so 'impregnated with the sweet odour of Christ that they seem as if anointed with earthly perfumes'); cf. also 2 Co 214¹⁶, and *Ignat. ad Ephes.* § 17.

Encyclopaedia of Religion and Ethics, VII (Edinburg 1930), 201-205

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INCA: see ANDEAN CIVILIZATION.

INCENDIARY MIXTURES are used to start fires, generally for military purposes but occasionally for arson or sabotage. They may be made from a variety of ingredients. Some mixtures ignite spontaneously when exposed to air; others take fire when the ingredients are brought together; still others require a fuse or first-fire mixture to heat them to the temperature at which they will begin to burn. Many incendiary mixtures may be extinguished if smothered with sand or dirt.

Greek Fire.—Simple incendiary mixtures have been known since ancient times. The Romans made mixtures of pitch, sulfur and other flammables, poured them into pots and threw them, burning, upon enemy buildings and ships. The most famous of the early incendiary mixtures was Greek fire (*q.v.*) invented by Callinicus around 670 A.D., and used by the Byzantines to defeat an Arab fleet. The composition of Callinicus' mixture is not known for certain because attempts were made to keep it secret and also because later writers applied the term Greek fire to many different kinds of incendiary mixtures and thus brought about unravelable confusion. Generally, the Greek fire of the middle ages contained petroleum and other flammables such as gums, resins and sulfur. The assertion that Greek fire contained quicklime that reacted with water and generated heat to ignite the petroleum is certainly incorrect because quicklime does not give off any flame when it is quenched.

Whatever the composition of the original Greek fire may have been, the name persisted down to the middle of the 19th century. During the American Civil War, Confederate agents burned Union transports on the Mississippi by throwing into the holds bottles containing a spontaneously flammable mixture which they called Greek fire; they set fire to buildings in New York city by similar means. Northern artillery upon occasion fired so-called Greek fire shells in attempts to burn Confederate positions and towns.

Thickened Gasoline.—An important advance in incendiary mixtures during the 20th century occurred when gasoline was thickened or solidified by the addition of materials such as rubber, plastics and soaps. The thickening process changed the liquid gasoline into a sticky, jellylike solid which was much less volatile than ordinary gasoline and which burned with an intense heat. Early in World War II several countries used natural rubber as a thickener. As supplies of rubber gave out other thickeners were found. The U.S. army chemical corps made use of a plastic known as isobutyl methacrylate, and of napalm (*q.v.*), an aluminum soap of naphthenic and coconut fatty acids. The U.S. army used millions of pounds of thickened gasoline during World War II and the Korean War in incendiary bombs, fire bombs and flame throwers (*q.v.*). (See also AIR POWER.)

Phosphorus.—One of the oldest incendiary mixtures is a solution of phosphorus. The ability of phosphorus to ignite spontaneously in air was discovered coincidentally with the isolation of phosphorus in 1669. After substances capable of dissolving phosphorus were found, it was natural that phosphorus solutions be suggested as incendiary agents. A common solvent is carbon disulfide, which evaporates rapidly and leaves behind a residue of spontaneously ignitable phosphorus. British patents were issued to John Macintosh in 1855 and to John Norton in 1863 for shells containing solutions of phosphorus and carbon disulfide. The U.S. army chemical corps standardized a mixture of phosphorus, carbon disulfide and rubber as a filling for glass grenades in World War II.

The German air force used a filling of phosphorus, benzene and rubber in incendiary bombs dropped on England. One of the most effective and most widely used types of artillery ammunition in World War II and the Korean War was the white phosphorus shell.

Metallic Incendiaries.—Thermite type mixtures contain a

metal and an oxide of another metal. A number of combinations may be made using various metals and oxides. One of the most common is a mixture of powdered iron oxide and powdered or granulated aluminum, similar to thermite (*q.v.*) used in welding. This mixture is inert at ordinary temperatures but when heated to a certain point by means of a first-fire charge, the ingredients react, forming iron and aluminum oxide. Intense heat then develops, raising the temperature of the mass to more than 2,000° C., hot enough to melt iron to a liquid. Iron-aluminum oxide mixtures with their burning characteristics modified by addition of other materials have been used in incendiary bombs, grenades and artillery shells. In World War II the magnesium bomb was a metallic incendiary used in great quantities. It consisted of an aluminum-magnesium body filled with a compressed thermite mixture.

Other Types.—The above classes of incendiary mixtures are those that are most important from the viewpoint of history or because of the large quantities used in warfare. Many other mixtures are known. Sulfuric acid and potassium chlorate react vigorously when they come in contact, a property that has been applied in constructing delayed-action sabotage devices. Potassium and sodium react violently with water, generating hydrogen, which then takes fire from the heat of reaction. This fact has led to the development of sodium-oil and potassium-oil mixtures that burn on the surface of water. The reaction between chromic anhydride and alcohol has been used to ignite gasoline in glass grenades. In the final analysis, the range of incendiary mixtures is limited only by the ingenuity of chemists.

See also CHEMICAL WARFARE.

(W. D. Ms.)

INCENSE, grains of resins (sometimes mixed with spices) which burn with a fragrant odour and have been widely used as an oblation or in the hope of reviving the dead, particularly in the higher religions (see also RESINS; FRANKINCENSE; MYRRH). The incense is commonly sprinkled on lighted charcoal in a censer, or thurible.

Incense-bearing trees were imported from the Arabian and Somali coasts into ancient Egypt where incense was prominent in religious ritual; e.g., at the daily liturgy before the cult image of Amon-Re and in the mortuary rites, when the souls of the dead were thought to ascend to heaven in the flame. Incense was employed to counteract disagreeable odours and drive away demons and was said both to manifest the presence of the gods (fragrance being a divine attribute) and to gratify them. The Babylonians used it extensively while offering prayer or divining oracles. It was imported into Israel before the Exile and was assigned miraculous powers (Num. xvi, 41 ff.); later, in the 5th century B.C., altars were set apart for incense offerings.

The Hindus, especially the Shivaites, use incense for ritual and domestic offerings, and so do Buddhists, who burn it at festivals and initiations as well as at daily rites. In China incense was burned to ancestors and household gods, in festivals and processions, and in Japan it was incorporated into Shintō ritual.

In Greece, from the 8th century B.C., woods and resins were burned as an oblation and for protection against demons, a practice adopted by the Orphics. In Rome fragrant woods were replaced by imported incense (Ovid, *Fasts*, i, 337 ff.), which became important in public and private sacrifices and in the cult of the emperor.

In the 4th century A.D. the early church began to use incense in eucharistic ceremonial, where it came to symbolize the ascent of the prayers of the faithful and the merits of the saints. Until the middle ages its use was more restrained in the West than in the East. After the Reformation it was employed sporadically in the Church of England until widely restored under the influence of the Tractarian (Oxford) movement in the 19th century; elsewhere in both Eastern and Western Catholic Christendom its use during divine worship and during processions has been continuous.

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INCENSE CEDAR (*Libocedrus decurrens*) is a handsome

—Enc. Britannica, XII (1972), p. 13. (CHICAGO)

ABOUT A TYPE OF ISLAMIC INCENSE BURNER

MEHMET AGA-UGLU

INCENSE burners were no novel vessels produced to meet the specific needs of Islamic social life. The origin of thurification with various aromatic substances for magical, religious, or social occasions, and the devising of special vessels for the purpose, go far back to the historical beginnings of the Near Eastern peoples.¹ Islam, although in principle opposed to luxurious ways of life, did not prevent the use of incense and perfumes. The popularity of perfumes during the first centuries is best illustrated by the lengthy legistic opinions expressed in the *Hadith* literature,² and, among others, by a chapter in the manual for elegant manners "of a man of polite education," written by Abu'l-Tayyib Muhammad ibn Ishaq al-Washsha.³

Historical sources are extremely generous with accounts on the subject.⁴ A few examples can be cited here, and others will be presented elsewhere. According to a descriptive account by al-Mas'udi, the 'Abbasid caliph, al-Ma'mun (198/813-218/833), presided over an assembly of legists every Tuesday. When these and other learned men came to the palace to attend these meetings, they were first

ushered into a chamber and served a meal, after which the incense burners were brought so that the guests could perfume themselves before entering the caliph's presence.⁵ The amount of aromatic substances, particularly aloes and certain varieties of sandalwoods, used for thurification in the households of caliphs and dignitaries, must have been enormous. We are informed by al-Tabari, for example, that Amr ibn al-Laith, the founder of the Saffarid dynasty of Eastern Iran, sent to Caliph al-Mu'tamid in the year 268 (881/82) 200 minas of aloes wood which he had confiscated from a grandson of Abu Dulaf.⁶ Among the properties left after his death in 301 (913), by Abu'l-Husayn Ali ibn Ahmad al-Rasibi, the 'Abbasid governor of Khuzistan and neighboring territories, were great numbers of gold and silver vessels, perfumes, and other valuables, as well as 4,420 *mithkals* of aloes wood for thurification.⁷

Thurification was, however, not confined to the audience halls of caliphs, kings, and their dignitaries, or to the drawing rooms and private chambers of urban aristocracy. An important account by the early tenth-century geographer, Ibn Rustah, suggests that religious institutions were likewise incensed, apparently under the influence of Christian church practice. Our authority relates how the orthodox caliph, 'Umar, presented to the mosque at al-Madina a silver incense burner ornamented with human figures which was brought by him from Syria.⁸ More than five centuries later the famous Spanish traveler, Ibn Jubayr, describes a religious ceremony during the month of Ramadan in a mosque at Mekka which was perfumed with aloes wood from a censer.⁹

1. See the exhaustive article by Fr. Pfister, "Rauchopfer," in Pauly-Wissowa, *Real Encyclopädie der classischen Altertumswissenschaft*, Zweite Reihe, I, cols. 267 ff. For ancient Egypt, Mesopotamia, and Palestine, numerous references will be found in J. R. Partington, *Origin and Development of Applied Chemistry*, London, 1935, pp. 146 f., 306, and 515 ff. This extremely useful book contains some 25,000 references. Hence, many errors, as the author himself recognized, were inescapable, and therefore it must be consulted with great caution. Regarding various incenses known to pre-Islamic Iran, consult Bundahishn, transl. by E. W. West, *The Sacred Books of the East*, V, *Pahlavi Texts*, Part I, Oxford, 1880, pp. 102 f., chap. XXVII, 19; see also B. Laufer, *Sino-Iranica*, Chicago, 1919, p. 193. For the Islamic periods valuable information will be found in the respective chapters of the twelfth volume of al-Nuwayri's *Nihayat al-'Arab fi Funun al-Adab*, Cairo, 1937.

2. A. J. Wensinck, *A Handbook of Early Muhammadan Tradition*, Leyden, 1927; see under "perfume."

3. *Kitab al-Muwashsha*, ed. R. E. Brünnow, Leyden, 1886, chap. 26, pp. 125 f.

4. Highly important in this connection is the observation of the great Islamic sociologist-historian, 'Abd al-Rahman ibn Khaldun, *Muqaddima*, ed. E. M. Quatremère, Paris, 1848, II, pp. 265, 17 f., who places the use of perfumes among the higher arts employed by the luxurious urban society.

5. *Muruj al-Dhahab wa Ma'adin al-Jawhar*, ed. B. de Meynard and P. de Courteille, Paris, 1861-77, VII, pp. 38, 9 f.

6. *Tarikh al-Rusul wa'l-Muluk*, ed. J. de Goeje et al., Leyden, 1879-1901, ser. 3, VII, p. 2018, 4.

7. Yaqut, *Mu'jam al-Buldan*, ed. F. Wüstenfeld, Leipzig, 1866-73, II, p. 617, 20; see also B. de Meynard, *Dictionnaire géographique, historique et littéraire de la Perse*, Paris, 1861, pp. 204 f., and A. von Kremer, *Culturgeschichte des Orients unter den Chaisers*, Vienna, 1875, II, pp. 209 f.

8. *Kitab al-'Ilaq al-Nafisa*, ed. J. de Goeje, Leyden, 1892, F. 66, 15.

9. *Rihlah*, ed. J. de Goeje, Leyden, 1907, p. 151, 13; also the

Primitive Secret Societies (New York, 1980). On the Aranda conception of the immortal soul, there is a fascinating account in Mircea Eliade's *Australian Religions: An Introduction* (Ithaca, N.Y., 1973), pp. 44-59.

The incarnation of the soul in the Greek philosophical tradition has been competently discussed by W. K. C. Guthrie in *The Earlier Presocratics and Pythagoreans* (pp. 306ff.) and *The Presocratic Tradition from Parmenides to Democritus* (pp. 249ff.), volumes 1 and 2 of his *A History of Greek Philosophy* (Cambridge, 1962 and 1965). The best single book on the gnostic view of the destiny of man and his immortal soul in the world remains Hans Jonas's *The Gnostic Religion*, 2d ed., rev. (Boston, 1963). On Sāṃkhya-Yoga, there is a concise account in Robert C. Zaehner's *Hinduism* (London, 1962), pp. 67ff. Focusing his attention on the fate of the immortal self in the world, Mircea Eliade has compared gnosticism with Sāṃkhya-Yoga in his essay "Mythologies of Memory and Forgetting," now included in his *Myth and Reality* (New York, 1963), pp. 114-138. There is a fine comparative study of the avatar beliefs of India and the Christian doctrine of the incarnation in Geoffrey Parrinder's *Avatar and Incarnation* (New York, 1970).

The eschatological expectation of the birth of the savior Mithra in ancient Iran has been elucidated by Geo Widengren in his *Iranisch-semitische Kulturbegegnung in parthischer Zeit* (Cologne, 1960), pp. 62-86. See also Mircea Eliade's *Méphis-tophèles et l'androgynie* (Paris, 1962), pp. 60ff., translated by J. M. Cohen as *The Two and the One* (Chicago, 1965), pp. 51-55.

Major problems of Greco-Roman kingship have been discussed authoritatively by Arthur Darby Nock in volume 1 (pp. 134ff.) and volume 2 (pp. 928ff.) of his *Essays on Religion and the Ancient World* (Cambridge, Mass., 1972), with an introduction by Zeph Stewart. On the conception of kingship in ancient Japan, see my article "Sacred Kingship in Early Japan: A Historical Introduction," *History of Religions* 15 (1976): 319-342.

Mahāyāna Buddhism has attempted to explain the historical Buddha Śākyamuni as an incarnation of the Eternal Buddha. See, in this connection, a brief but illuminating account of the doctrine of the "three bodies" (*trikāya*) of the Buddha by T. R. V. Murti, *The Central Philosophy of Buddhism*, 2d ed. (London, 1970), pp. 284-287. On the conception of the cosmos as the embodiment of the Buddha Mahāvairocana, see *Kūkai: Major Works*, translated, with an account of Kūkai's life and a study of his thought, by Yoshito S. Hakeda (New York, 1972), pp. 76ff.

On the history of the Christian doctrines of the incarnation, there is an admirable account by Jaroslav Pelikan in *The Emergence of the Catholic Tradition, 100-600*, volume 1 of his *The Christian Tradition* (Chicago, 1971).

MANABU WAIDA

INCENSE. The term *incense* (from Latin *incendere*, to burn or kindle) has the same meaning as the word *perfume*, i.e., the aroma given off with the smoke (*per fumar*) of an odoriferous substance when burned. Incense may then be associated with the perfume arising from the burning of substances that produce a pleasant odor.

Aloe, camphor, cloves, sandalwood, myrrh, frankincense, cedar, juniper, balsam, galbanum, and turpentine have been used as incense. Since ancient times incense has been an important part of religious rites and practices in various regions of the world. Incense has been used to appease the gods, sanctify a place or an object, display reverence and respect, honor commitments, tie bonds, and seal promises and friendships. Valued as a precious commodity, it was offered as a gift to honored personages: frankincense and myrrh were two of the gifts the wise men of the East brought to the infant Jesus.

In association with concepts of purity and pollution, incense plays a major role in purification rites and customs. Incense smoke is used for these purposes because of the transforming powers of fire, as well as the seemingly purificatory powers of sweet smells. Because its fragrance is thought to be pleasing to the gods, incense has played an important role in worship and is used in ceremonies of offering, prayer, intercession, or purification. It is used to attract the attention of, or establish a connection with, a deity and is also used to exorcise evil or harmful forces.

The Far East and India. In Chinese, the word *hsiang* can mean both "aromatic" and "incense." In China incense was sometimes burned in conjunction with aesthetic enjoyments like reading, writing compositions, or performing music; in Japan it was an important part of the tea ceremony. In Chinese Taoism, incense was used to disperse evil and to appease the gods; it was also employed in rituals for the cure of disease. Considered a punishment for evil deeds committed by the sufferer himself or by an ancestor, illness was regarded as a punishment by the San Kuan (Three Officials), the judges and officials of the dead. During the rituals for curing sickness, a formal appeal was made to mitigate and revoke the officials' judicial severity. Using the rising flame and smoke from the incense burner in the center of the oratory to transmit a message borne by spirits exteriorized from within his own body, the Taoist libationer submitted petitions (*chang*) to the appropriate bureau of the Three Heavens (San T'ien), where officials pronounced judgment on the appeal and marshaled celestial forces against the offending demons responsible for the illness. Incense played a major role in another Taoist ritual for fending off disease, the Mud and Soot Retreat or Retreat of Misery. The ritual was usually performed outdoors at a specially delimited sacred area, or altar (*t'an*). It was a ceremony of collective contrition where the combined effects of clouds of incense, the light of many lamps, and the sound of the chanted liturgy produced a cathartic experience in the participants.