Journal of Ethnopharmacology ∎ (∎∎∎∎) ∎∎∎–∎∎∎

Contents lists available at ScienceDirect

Journal of Ethnopharmacology

journal homepage: www.elsevier.com/locate/jep

In the shadow of a pepper-centric historiography: Understanding the global diffusion of capsicums in the sixteenth and seventeenth centuries ☆

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ARTICLE INFO

Article history:
Received 15 July 2014
Received in revised form
19 September 2014
Accepted 19 October 2014

Keywords:
Post-Columbian global plant diffusion
History of capsicum pepper
History of black pepper
Early modern European botanical research into spices

ABSTRACT

Historians of the Eurasian spice trade focus on the fortunes of black pepper *(piper nigrum)*, largely Q3 because the trading companies of the Dutch and English which they study also did. Capsicum peppers are, however, the world's most consumed spice, and their story needs to be told in parallel. The five species of capsicum peppers spread across the world in less than two hundred years following their discovery by Europeans in South and Central America and proved both hardier than *piper nigrum* and able to reproduce spontaneously. While the taste was similar but more pungent than black pepper, capsicums provided an important vitamin C and bioflavanoid supplement to poorer people in southern and Eastern Europe far from the precepts of good taste as dictated from Paris, and rapidly became a mainstay of tropical cuisine across the world. This contribution seeks both to trace and to understand that diffusion and its principal vectors from historical research amongst a plethora of primary source materials in European and Asian languages. Medical and dietetic reaction is presented from a wide range of contemporary texts. The work proceeds according to deductive reasoning and in comparison to the diffusion of black pepper consumption. It reveals the very different strategies of import substitution and commercial embargo undertaken by Portuguese and Spanish authorities, a somewhat later date of arrival in China than previously thought, and three different, competing lines of entry into an important area of later cultivation, namely Central Europe.

1. Introduction

Capsicum peppers are eaten by more than one quarter of the earth's inhabitants every day. Mass market paperbacks herald a plant that 'changed the course of history', to quote Bill Laws.[1] And yet in established historiography, in say the lengthy glossary of spices traded and mentioned in medieval and early modern Europe by Wilhelm Heyd, we fail to come across capsicums.[2] While Heyd may have unconsciously drawn a line at plants unknown to Europeans prior to 1492, to other established scholars like Ken Albala capsicum remained just a 'botanical curiosity' on the margins of European consumption for the early modern period[3] Historians seem far more interested in calculating the

☆My thanks go to Toru Takenaka, Prof., D. Lit at Osaka University, for help rooting out relevant Japanese literature, to Swansea University History student Howard Leung for help with Chinese characters, to Prof. Zhang Wen, Dean of Translation Services at Beijing International Studies University for help reading Chinese literature, and to Koun Jang, a researcher at the Documentary Department of the Korean Broadcasting Corporation (KBS) for his help with Korean characters.

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[1] Ken Albala, 2002. Eating Right in the Renaissance, Berkeley CA, University of California Press, 236; Bill Laws, 2010. Fifty Plants that Changed the Course of History. Newton Abbot, David & Charles, pp. 38–41. Other relevant literature on this topic includes Jonathan Sauer, 1976. 'New World Plants in Europe, 1492–1800', in Fredi Chiapelli, First Images of America: the Impact of the New World on the Old. Fredi Chiappelli (Ed.), Berkeley, University of California Press, vol. 2, p. 825; Pardo Tomás, López Terrada, 1993. Las primeras noticias sobre plantas americanas en las relaciones de viajes y crónicas de Indias (1493–1553). Valencia, Universitat de València/CSIC, pp. 172–174; Enrique Alvarez López, 1945. 'Las plantas de América en la botánica europea del siglo XVI', Revista de Indias, 19–22, pp. 221–288. Edward M. Test, 2010. Making New World Publics: Botanical Studies in Sixteenth-Century Europe, in Early Modern Culture 8, pp. 1–8; Deana Sidney, 2014. 'Chiles' Global Warming, in Saudi Aramco World, vol. 65, number 2; Jean Andrews, 1996. The Peripatetic Chili Pepper: Diffusion of the Domesticated Capsicums since Columbus, in: Nelson Foster, Linda S. Cordell (ed.) Chilies to Chocolate, (Tucson, 1992), 82. This book has been criticized by its reviewers for generalities and lack of footnoting, see Journal of Ethnobiology, vol. 16, no. 2, 1996, 162.

[2] Wilhelm Heyd, 1885–6. Die Geschichte des Levantehandels im Mittelalter. Leipzig, vol. 2, pp. 550–677.

[3] Ken Albala, 2010. Eating Right in the Renaissance. Berkeley CA. University of California Press, 236; Bill Laws, 2010. Fifty Plants that Changed the Course of History. Newton Abbot, David & Charles, pp. 38–41. Other relevant literature on this topic includes Jonathan Sauer, 1976. New World Plants in Europe, 1492–1800, in: Fredi Chiapelli (Ed.), First Images of America: the Impact of the New World on the

http://dx.doi.org/10.1016/j.jep.2014.10.048
0378-8741/

global movements of black pepper, noting that imports by both Portugal and Venice from the East Indies continued to flourish through the sixteenth century, and indeed subsequently rose.[4] How then, and at what point did capsicum become 'the world's most popular condiment'?[5] More intriguingly, why did consumers take to it at the expense of *piper nigrum*?

A cursory look around reveals manifold misunderstandings and plain errors spread around both in the past and today through such media as internet blogs. These range from the belief that 'Korean red pepper', or *gochu* (고추) was an indigenous product to Korea, and not an import from Japan and the beyond. The same kind of assertions has been made by the Indian Spice Board as to the 'Indianness' of chilli, and amongst Spanish peasants in Murcia. A lot is at stake in this nationalist posturing: the capsicum is a key ingredient to Korea's national dish, *gimchi*. Then, there are semantic confusions which stem from plant names changing their attachment to different plants at some point in the course of history: *malagueta* in Brazil is one good example, which originally attached to *Aframoma Roscoe*, but then switched to *Capsicum frutescens*. Capsicum also went known as 'Calicut pepper', and in England as late as the 1650s as 'Guinea pepper', both of them mistakes with the capacity to mislead.

The work of a group of botanical archeologists has already established via various techniques such as multi-variate analyses (a rather controversial, or should I say imprecise science), but also chromosomal studies and archeology, that capsicums spread across the Americas and into central America prior to Columbus, and have attempted to differentiate between the natural migration of wild species and domesticates spread around by man.[6] While the earliest archeological traces of wild seeds date to 6500–5000 B.C., the plant appears to have been domesticated by around 900 B. C. There was some discussion as to whether there existed one progenitor species, or whether there were three separate evolutionary lines leading to the cultivated taxa.[7] Early botanists like Dinal in 1852 reported as many as 50 different species. Today, Kew Gardens register around 25 species of chilli pepper noting, however, that of the several species of chilli peppers domesticated by the American Indians, *Capsicum annuum* has been most grown in Europe; this species includes common chilli, cayenne, paprika, sweet bell peppers and other varieties. The structure of the nectarines, and the presence of giant cells on the inner surface of the fruit, rather than finding traces of capsaicin (itself the subject of detailed chemical analysis in journals like *Sensors and Actuators B: Chemical*), has become the most important attribute in determining what is a species and what are merely variants (Table 1).

The first thing we can say about capsicum's post-Columbian diffusion is that it spread from the very outset of American (re-) discovery, and extremely fast. On 15 January 1493, Columbus noted in his diary that there was a lot of chilli here [in Hispaniola] 'like pepper, but which is worth more than pepper, and everybody does not eat without it, which is very healthy, around 50 caravels could be loaded up every year'.[8] He goes on to emphasize the superabundance and fertility of the land in Hispaniola, as if things would never be of quite the same dimensions elsewhere.[9] From the Brazilian side, we have mention by Hans Staden of Hesse, who describes two species mid-century – a yellow and a red one, while Gabriel Soares de Sousa counted six different species in 1587.[10]

This speed of European diffusion breaks the general rule, for Charles Talbot and Jonathan Sauer see new American species extremely slow to make headway in Europe, following Sir John Elliott's more general hypothesis as to the 'blunted impact' of the New World. Brunfels's herbal of 1530, for example, includes no reference to American discoveries.[11] The concensus is, however, otherwise, as Heiser and Huguet-Termes would maintain.[12] We can also place Giuseppe Olmi in this second camp: he holds to the idea, somewhat rhetorical, of the New World as 'an immense jewel-casket' *(un immenso scrigno),* full of precious novelties and extraordinary marvels, ready to pour forth into European lands'.[13]

News of the species tended to travel ahead of the plants themselves. Chilli pepper did not spread like the prickly pear, which traveled in unison with the population diaspora of Moriscos, following their expulsion from Spain from 1502 and in repeated waves thereafter until 1609, when between 100,000 and 150,000 individuals were deported in one fell swoop.[14] The dissemination was much more disassociated from individuals, aided by the plant's ability to reproduce spontaneously via self-pollination rather than only as a product of cross-fertilization or human intervention, although as we shall see in the case of Hungary and Italy, the introduction of chilli as part of the circulation of material objects amongst scholars did play an important role.[15] The spice was easily cultivable and thus did not

(*footnote continued*)
Old. Berkeley, University of California Press, vol. 2, p. 825; Pardo Tomás,d López Terrada, 1993. Las primeras noticias sobre plantas armericanas en las relaciones de viajes y crónicas de Indias (1493–1553). Valencia, Universitat de València/CSIC, pp. 172–174; Enrique Alvarez López, 1945. Las plantas de América en la botánica europea del siglo XVI. Revista de Indias, vol. 19–22, pp. 221–288.

Edward M., Test, 2010. Making New World Publics: Botanical Studies in Sixteenth-Century Europe, in Early Modern Culture 8, pp. 1–8; Deana Sidney, 2014. 'Chiles' Global Warming', in Saudi Aramco World. March/April 2014, vol. 65, number 2; Jean Andrews, 'The Peripatetic Chili Pepper: Diffusion of the Domesticated Capsicums since Columbus', in: Nelson Foster and Linda S. Cordell (Ed.), Chilies to Chocolate (Tucson, 1992), 82. This book has been criticized by its reviewers for generalities and lack of footnoting, see Journal of Ethnobiology, vol. 16, no. 2, 1996, 162.

[4] Anthony Reid. 1990. The System of Trade and Shipping in Maritime South and South-East Asia, and the Effects of the Development of the Cape Route to Europe', Figs. 1 and 2.5 in The European Discovery of the World and its Economic Effects on pre-Industrial Societies, 1500–1800. In: Hans Pohl (Ed.), Papers of the 10th International Economic History Congress. Stuttgart, pp. 76–77.

[5] Warwick Bray (Ed.), 1993. The Meeting of Two Worlds: Europe and the Americas, 1492–1650. Oxford University Press.

[6] See Ghillean T., Prance, 1984. Migrations of chilli peppers in the Americas, in Pre-Columbian plant migration: papers at the Pre-Columbian Plant Migration Symposium, Manchester, and especially chapter 6, Barbara Pickersgill, Migrations of chili peppers, Capsicum spp. in the Americas, 105–123.

[7] Eshbaugh, Guttman, McLeod, 1983. The origins and evolution of domesticated capsicum species. Journal of Ethnobiology, 3, 49–54; Moscone et al., 1996. Fluorescent Chromosome banding in the cultivated species of capsicum, 1996.

[8] 'También hay mucho axí, ques su pimiento, della que vale más que pimiento, y toda la gente no come sin ella, que la haya muy sana; puédense cargar cincuenta carabelas cada año en aquella Española'. Ramos Pérez & González Quintana. Cristóbal Colón. Diario del primer viaje, Granada, 1995, 359.

[9] Cortes wrote a generation later about the maize, yucca and *ajies* (small, green peppers) 'which is what the natives of the island [which one?] live on and makes a fair meal' in his *Fifth Letter* regarding the 'disastrous' Honduras expedition 1524–6 (1971 ed., p. 350).

[10] The captivity of Hans Stade of Hesse in A.D. 1547–1555, among the wild tribes of eastern Brazil, Albert Tootal, Richard F., Burton (Eds.), 2010. Farnham. England, Ashgate; Soares de Sousa, Tratado Descritivo (Notícia) do Brasil Rio de Janeiro: João Ignacio da Silva, ed. Varnhagen, 1867, Ch. 48 'Quantas castas de pimenta ha', pp. 165–6.

[11] Otto Brunfels, Herbarium vivae eicones: ad nature imitationem, suma cum diligentia et artificio effigiate, una cum effectibus earundem, in gratiam ueteris illius & iamiam renascentis herbariae medicinae, 1530.

[12] Huguet-Termes, 2001. New World Materia Medica in Spanish Renaissance Medicine: From Scholarly Reception to Practical Impact', in Medical History, vol. 45, pp. 359–376; Heiser, 1995. 'Peppers: Capsicum (Solanaceae)', in: Smartt, J., Simmonds, N.W. (Ed.), Evolution of Crop Plants, Longman, Harlow, pp. 449–51.

[13] Olmi, G., 1992. Magnus campus: I naturalisti italiani di fronte all'America nel secolo XVI', in Olmi ed., L'Inventario del Mondo: catalogazione della natura e luoghi del sopare nella prima età moderna. Bologna, Il Mulino, pp. 212.

[14] García Arenal, M., 2003. La diaspora des Andalousiens, Aix en Provence, 123, 137, 139; David Abulafia, A Great Sea, pp. 474–475.

Please cite this article as: Smith, S.H., In the shadow of a pepper-centric historiography: Understanding the global diffusion of capsicums in the sixteenth and seventeenth centuries. Journal of Ethnopharmacology (2014), http://dx.doi.org/10.1016/j.jep.2014.10.048