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CONNECTIONS BETWEEN EGYPT AND SUB-SAHARAN AFRICA:

THE EVIDENCE OF CULTIVATED PLANTS

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**CONNECTIONS BETWEEN EGYPT AND SUB-SAHARAN AFRICA
THE EVIDENCE OF CULTIVATED PLANTS**

ROGER BLENCH

1. Introduction

The relationship between the culture of Ancient Egypt and sub-Saharan Africa has for most of the century attracted both sober scholarship and wild speculation. Broadly speaking, the absence of textual evidence for earlier periods in the countries south of the Sahara combined with Africa's spectacular diversity of material culture and societies made it possible to find evidence for almost any connections the beholder wished to demonstrate.

The antithesis to this grew up during the 1960s when the scholarly world rightly wished to assert the indigenous creativity of African peoples and saw a crypto-racism behind the efforts of Frobenius, Elliot-Smith, Seligman and others to assign elements of African culture to external origins. The hidden assumption was that because Africans 'could not' have invented various cultural innovations these must have been introduced from outside.

This view has much to recommend it - but there is a certain danger of ignoring connections in the fervour to cast out 'introductions'. A combination of recent research findings and the declining need to support defensive positions makes it possible to set out a more considered approach to observable similarities.

This paper argues that there is at least one area of material culture where the evidence for early links between Egypt and the sub-Saharan region are indisputable - cultivated plants. Ironically, the direction of transmission for cultivated plants is generally *from* the sub-Saharan region to North Africa/Egypt.

2. The evidence of cultivated plants

Evidence for the antiquity of cultivated plants in Egypt and to a lesser extent elsewhere in Africa comes from archaeological and occasionally textual data. However, sub-Saharan Africa has had relatively little excavation by comparison

and it is fair to say that there are no sites in West Africa with plant material early enough to make a material contribution to the discussion about the domestication of minor crops.

Cultivated plants have a significant advantage over other types of material culture - they cannot arise by independent invention. Once a plant has undergone significant genetic alteration through the domestication process its signature is instantly recognisable. It is therefore possible to make a stronger case using botanical evidence than by arguments from material culture.

The decades since 1970 have seen a significant expansion of paleoethnobotanical research and the original centres of domestication and dispersal of major crops are now known with some certainty. From the point of view of Africanists, the volume by Harlan, de Wet and Stemler (1976) on the origins of African domesticated plants proved something of a landmark.

There is a surprising number of plants associated with human settlement that have a distribution stretching between West Africa and India. Other plants, such as sorghum and finger-millet, also connect Africa and India, but these are generally associated with the sea-route from the Horn of Africa to the west Coast of India, the 'Sabaean Lane', and are not dealt with here. Some plants indigenous to West Africa seem to have made their way early to Egypt/North Africa and thence to India. Others may have gone from India to Africa via Egypt although there is no undisputed example of this. There are two key texts in the documentation of Egyptian food-plants: Darby et al. (1977) and Germer (1985).

These plants can be divided into two categories; those whose original homeland is still disputed and those for which it is fairly certain. The most important of these plants are:-

Latin	Common Name	Other Names
Well-documented:		
<i>Citrullus lanatus</i>	Egusi melon	Water-melon
<i>Cajanus cajan</i>	Pigeon pea	
<i>Vigna unguiculata</i>	Cowpea	Black-eyed bean
<i>Ricinus communis</i>		Castor-bean
Uncertain or disputed:		
<i>Abelmoschus esculentus</i>		Okra
<i>Moringa oleifera</i>		Horseradish tree
<i>Tamarindus indica</i>	Tamarind	Ben-oil tree
<i>Abrus precatorius</i>	Jumblebeads	
<i>Carthamus tinctorius</i>	Safflower	

Egusi melon/Water melon

The exact region of domestication of *Citrullus lanatus* within Africa is still uncertain, as is its relationship to the bitter melons var. *colocynthoides*. The Egusi melon is cultivated in West Africa exclusively for its seeds which are ground up and used to flavour soups. Evidence for the presence of bitter forms (var. *colocynthoides*) appears very early in Egypt (Germer, 1985:127, Darby et al., 1977:717-8). These were presumably cultivated either for their seeds or for medical purposes. At some point they were transformed into the familiar sweet-fleshed varieties cultivated today and now, ironically, introduced into west Africa as a 'new' cultigen.

Pigeon pea

The pigeon pea is found wild in Africa and it is generally agreed to originate there (Purseglove, 1968:236). Schweinfurth recorded a find of seeds in a Twelfth Dynasty [i.e. c. 2000-1800 BC] tomb at Thebes (Germer, 1985:94). It was transmitted to India at an early period and this is now its main centre of varietal diversity (Purseglove, 1976:297).

Cowpea

For such an important plant, relatively little has been written about its origin and spread. It is generally agreed to originate in West Africa, where wild forms have been collected up to the present (Faris, 1965 and Purseglove, 1968:324). Again, India is an important centre of varietal diversity. Schweinfurth identified cowpeas from fifth Dynasty material and faenza models showing the characteristic black 'eye' are said to exist (Darby et al, 1977:692 and Germer, 1985:88). The precise term for the cowpea in Egyptian texts remains disputed.

Castor bean

The castor-bean, a source of castor-oil used for medicine and lighting is apparently of African origin (Mauny, 1953:717 and Purseglove, 1974:181). It is still sporadically cultivated in subhumid environments. Castor beans have been found in pre-dynastic contexts in Egypt (Germer, 1985:104) and castor-oil was apparently used both medicinally and for lighting. According to Burkill (1953) castor-oil is also recorded early in India.

Okra

Okra is generally thought to be an African domesticate (Purseglove, 1976:304) although it is well established in India, apparently from an early date. Although the evidence for okra in Ancient Egypt is disputed (Darby et al, 1977:695) it was certainly of considerable importance in Middle Eastern cooking from the Medieval period. It is therefore likely that it diffused from West Africa to India via Egypt.

Horseradish tree

The horseradish tree, *Moringa oleifera*, is found apparently wild in both West Africa and India although it is

probably naturalised in one or the other region. Some authors have assumed that its origin is in India, although their basis for this assertion is unclear. In view of the tamarind, an African origin seems equally likely. Moringa oil ('ben-oil') was used medicinally in Ancient Egypt (Darby et al, 1977:788). Positive identification of *Moringa* material is difficult because of the similarity to *M. peregrina* (Germer, 1985:59) and there is no certain attestation before the Roman period.

Tamarind

The literature on tamarinds is again disappointingly exiguous; tamarinds are found wild in the semi-arid belt of West-Central Africa (Purseglove, 1975:204) and are recorded in India at an early date. Remarkably, neither Darby et al nor Germer have anything to say about tamarind, although the use of tamarind to make a refreshing drink is at least common in contemporary Egypt.

Sesame

The case of sesame remains disputed. Earlier texts argued for the domestication of sesame in West Africa because of the presence of a multiplicity of wild relatives. There are no less than four cultivated species (*S. indicum*, *S. radiatum*, *S. angustifolium* and *S. alatum*) and a co-occurring weed, *Ceratotheca sesamoides*, in West Africa.

In a recent article, Bedigian et al (1985) have argued that the true ancestor of the common cultivated sesame (*S. indicum*) is *S. orientale* var. *malabaricum*, previously thought to be a descendant of an adventive. This would satisfyingly explain the early archaeological records of sesame in the Ancient World and India, but still does not accord with the abundance of wild and cultivated relatives in West Africa. To account for this it may still be necessary to accept an early introduction from West Africa.

Bedigian et al (1986) have collated a substantial body of evidence relating to the use of sesame in Mesopotamia and the Ancient World. Sesame is definitely recorded in Egypt relatively late in the Third Century BC (Darby et al, 1977:497) but may have been present much earlier (Germer, 1985:172).

Jumblebeads

Jumblebeads are not strictly cultivated plants but they have a close association with human settlement because of the medicinal and ornamental uses of the bright-red seeds. Like many other such plants they seem to be well established and are found wild in both Africa and India (Germer, 1985:93). As a trade item it is uncertain whether the Egyptian material (found in Thebes and dated at c. 1700 BC) was ever planted. However, Egypt clearly acted as way-station on the movement of the plant between Africa and India.

Safflower

The dye-plant, *Carthamus tinctorius*, was originally thought to be of Indian origin, but today competing claims have

been advanced for Asia Minor, Ethiopia and Central Africa (Germer, 1985:173-4). The earliest evidence for its use as a dye-plant dates from the Twelfth Dynasty (Darby et al, 1977:805).

3. Discussion

No documentation exists to explain the movement of these cultivated plants and indeed the scattered archaeological finds do not constitute a unified body of evidence. The regions to which the progenitors of these wild plants were indigenous may have extended still further five thousand years ago. However, the evidence does suggest that;

a. A number of garden vegetables, dye and oil-plants had been domesticated in the semi-arid zone of West-Central Africa by 2,000 BC.

b. They were carried from sub-Saharan Africa to Egypt/North Africa for cultivation

c. They were promptly transmitted onwards to Iran and thence to India

d. There is no certain evidence of movement of cultivated plants in the reverse direction until substantially later.

One of the implications of d. is that the carriers were probably of North African origin - whose primary mission was probably the acquisition of high-value trade goods but who were not averse to carrying seeds on an experimental basis. An interesting piece of contributory evidence is the find of an oil-palm pericarp at Shaheinab in the Northern Sudan (Arkell, 1953). This would certainly have been brought as a trade item, since it is remote from the region where oil-palms are indigenous.

This suggests they had only limited involvement with the communities on the southern edge of the desert and had no intention of settling. North African cultigens, by contrast, such as onions, wheat, dates etc only came across the desert with the Arab-managed caravan trade that begins in the early Medieval period.

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