

Association for Africanist Anthropology

MICHAEL LAMBERT, CONTRIBUTING EDITOR

Handcarts in Malawi and Sub-Saharan Africa

By Arnold P Wendroff

I was a Peace Corps volunteer in Malawi from 1967-68. Later I conducted doctoral and postdoctoral research on traditional medical and sorcery practices in Malawi. I quickly became convinced that the absence of wheeled transport posed a constraint to agricultural productivity in particular, and development in general. After having seen a friend's garden cart here in the USA, I became convinced that this simple and affordable intermediate means of transport (IMT) should be transferred to Malawi.

Handcarts of many varieties (mail delivery carts, grocery carts hand-trucks, wheeled luggage, golf carts and garden carts) are widely used outside of Africa. The situation is vastly different in Sub-Saharan Africa (SSA), where few affordable IMTs exist. In Malawi, the ratios of people to vehicles are 32:1 for bicycles, 400:1 for ox/donkey carts and 200:1 for motor vehicles. Therefore, women (and occasionally men) carry heavy loads on their heads and backs not by choice, but rather because they are forced to do this due to the dearth of wheeled vehicles.

My two initial attempts at handcart introduction were in 1992 at Livingstonia Mission in northern Malawi, and in 1998 at Chitedze Agricultural Research Station (CARS) in central Malawi, using conventional handcart designs. I had local carpenters build handcarts using components (two wheels on a common axle) that I brought to Malawi. The advantages of these handcarts over both headloading and wheelbarrows were readily apparent to the farmers I demonstrated them to, as they enabled even small women to easily move 100 kg loads along dirt tracks at a rate of roughly 4 km/hr. Compared to wheelbarrows, their volumetric capacity is greater, the operator does no lateral balancing, and most importantly, as the load is balanced over the axle, the operator does no lifting. However, as handcart wheel-axle sets are unavailable in Malawi and elsewhere in SSA, and as I was unable to convince anyone to import them, there was no realistic possibility that this handcart would become widely available.

I therefore decided to adapt an alternative more complex handcart design to suit Malawian circumstances. In 2000 at Livingstonia, I constructed a prototype handcart using bicycle wheels connected not by a common axle, but by a wood frame. I had an additional 10 Livingstonia Carts built by a local workshop for demonstration and testing. Due in part to the hilly terrain and the inadequate training of the operators, there was an excessive rate of wheel buckling and the carts were not well received. Eight carts were purchased by CARE-Malawi for a women's road repair project in the flat Central Region, but they too suffered from spoke breakage and wheel buckling. However, as I was here in the USA, there was little I could do to investigate the cause of these breakages.

As I believed that my design was inherently sound, I returned to CARS in 2002 and developed an improved version—the AfriCart. I trained eight local carpenters to build them, and went the rounds of government and NGO offices attempting to convince them to assess the carts. I commissioned the construction of some 40 AfriCarts, which I donated to a variety of agencies. Other NGOs have ordered carts for testing, with some 100 currently under test or on order. Once operators were trained not to overload the AfriCart, and to avoid making rapid sharp turns, the problem of wheel buckling was eliminated. Local farmers and entrepreneurs have begun to commission carpenters to build AfriCarts for their own use, and two cities (Lilongwe and Mzuzu) have begun to use AfriCarts for collecting rubbish.

The unique feature of the AfriCart design is that it is constructed simply, and (relative to other IMTs) inexpensively, by ordinary carpenters who use hand tools and locally available components and materials. This gives the AfriCart a potential for rapid and widespread uptake, greater than most competing IMT designs of comparable utility.

A more detailed and pictorial description of AfriCart development and dissemination can be found at www.malawihandcartproject.org. It would be valuable for anthropologists not only to examine the impact of handcart technology on agriculture, but to actively assist in handcart dissemination. It would be of more than academic interest to enquire why handcarts are subconsciously ignored by development and relief communities working in SSA? What are the cultural blinders that have precluded agricultural development experts from introducing handcarts to SSA?

For more information, please contact Arnold Wendroff at mercurywendroff@mindspring.com.

Contact: Michael Lambert, UNC at Chapel Hill, Dept of African and Afro-American Studies, CB 3395, Chapel Hill, NC 27599; tel 919/962-3536; fax 919/962-2694; mlambert@unc.edu.



Joto Kasambala testing the prototype Mark la chassis with Patrick Chisi on board.



STACY M. LAMBERT, Managing Editor
(slathrop@aaanet.org)

JAMES C. WERNER, Production Editor
(jwerner@aaanet.org)

Anthropology News, the official newspaper of the American Anthropological Association (AAA), is published monthly, except for June, July and August.

The mission of the AAA is to advance anthropology as the science that studies humankind in all its aspects, through archaeological, biological, ethnological and linguistic research; and to foster the use of anthropological knowledge in addressing human problems. *Anthropology News* (AN) advances this mission by providing members with news of Association business; discussions of issues of vital importance to the discipline; and information on publications, professional job opportunities, research funding availability, meetings and other items of importance to members. AN promotes the discipline of anthropology and the interests of anthropologists across all subfields.

Anthropology News

American Anthropological Association
4350 N Fairfax Dr, Suite 640
Arlington, VA 22203-1620
Telephone: 703/528-1902
Fax: 703/528-3546
www.aaanet.org/press/an/index.htm