## Designing the post-colonial car:

# A bumpy road for personal transport

## in Africa.

Paul Hazell University of Worcester Henwick Grove Worcester WR2 6AJ UK Tel: 01905 855392

Fax: 01905 855132

Email: p.hazell@worc.ac.uk

#### Abstract

The history of the car in Africa engages with many of the colonial interests in the region but the topic has remained largely ignored by design historians. This article explores three attempts made to develop a post-colonial car for manufacture in Africa.

In the 1980s the Englishman Tony Howarth designed the 'Africar', a vehicle intended specifically for rural Africa, constructed with a wooden body and an engine borrowed from the Citroën 2CV. The 1990s saw the 'Uri' design, initially developed by a Namibian farmer as a simple and robust 4x4. Currently the 'Mobius', an inexpensive yet rugged car, is under development in Kenya. Success for all of these vehicles has been problematic however. Despite various attempts, and a growing demand for personal transport in Africa, there is as yet no indigenously designed and manufactured car addressing the continents needs.

This article explores these examples and asks what factors have prevented the creation of an indigenous car for post-colonial Africa. The recent 'centre-periphery' debate is applied to the case, the notion that there is one solution for an entire continent, and the intra-African factors that have inhibited the emergence of an African car industry are also explored.

Key words:

Africa, Car, Indigenous, Transport, Upcycling, Centre-Periphery

### The car in Africa

While personal private transport has mushroomed in the industrialised western world, it has remained out of reach for most in Africa. Cars are, of course, widespread in all regions of the continent but despite various attempts, and a growing demand for personal transport, there are as yet virtually no indigenously designed and manufactured cars addressing the continents needs. The motor vehicle for use in the bush (i.e. rural areas of Africa) is distinct in important ways from those used elsewhere. Increasingly, personal transport in urban areas of Africa resembles that in western cities. With many surfaced roads and greater concentrations of economic activity, cars designed for western markets are far more suitable for the cities if not the rural regions.

The car in Africa has a long history but surprisingly has remained a topic neglected by design historians and those working in other disciplines.[1] This limited historical and social research contrasts significantly to research carried out with regard to African Railways where both anthropologists and transport historians have written much.[2] However the car, and road transport on the continent more broadly, has remained largely ignored despite it being a key means of the former colonial powers exerting their control and undertaking economic exploitation.

Outside academia there are many published accounts of the motorcar in the African bush but these comprise mainly of stories of westerners 'overlanding' through the desert or savannah. However, for the historian, these accounts are of limited use as they usually rely on the journey as a narrative structure in which to place the many

experiences, mishaps, challenges, personal encounters and adventures of the traveller. Although these aspects may make such travel appealing, such narratives reveal little or nothing (with the possible exception of road conditions and driving standards) about the realities of car use in the bush for those resident there.

Africa first saw widespread use of the car after World War II with vehicles such as the Land Rover and later the Toyota Land Cruiser being imported. Although being eminently suitable for many of Africa's rural roads their use has been generally restricted to the police and armed forces, international companies and Non-Governmental Organisations (NGOs) such as charities with their purchase price far exceeding the budgets of the majority of rural Africans. However, these four-wheel drive vehicles, when sold or disposed of, would often eventually end up with individuals such as farmers, for rural load carrying duties and as informal buses. By this stage the vehicles were usually elderly and frequently in poor mechanical condition due to lack of spares or funds to purchase the required parts. Private personal transport has therefore centred on either walking, ox or donkey carts, mopeds/motorbikes or cars imported as insurance 'write-offs' from Europe, such as the older robust and mechanically simpler models from Renault, Peugeot, Citroën and Fiat. This has often been supplemented by the long tradition of 'upcycling' by mixing components from scrapped or crashed vehicles to create new transport solutions.[3] In recent years pick-ups, usually Toyotas, imported from the middle east to central Africa in large numbers have also gone some way to filling the transport needs of the region at more affordable prices. This influx of vehicles simultaneously demonstrates the demand for simple and robust transport while highlighting the lack of an indigenous car industry.

Western car manufactures could be accused of looking at Africa as simply one market, as opposed to many countries with varying needs. For most western carmakers the African market is, at best, broadly split into two groups: South Africa and developing Africa. South Africa is a similar market to that in many western countries, with significant economic activity, relatively stable governance and a growing middle class able to buy a new car for the mainly surfaced roads. These are key factors for western car makes. As one senior employee at a large manufacturer put it 'we are in business to make money, not cars'.[4] Although having regions of considerable wealth where sales of prestigious cars have long been possible, car manufacturers exporting to Africa generally restrict their interests to urban areas. For the bush market, rugged 4x4s are sold to the state or NGOs, leaving private personal transport for the masses to local ingenuity.

This has led to a transport vacuum for ordinary Africans in areas away from rail routes or where bus services are either not possible due to the conditions or are economically unviable. This vacuum has to a great extended been filled by the ubiquitous 'motatus' taxi-van usually of Japanese manufacture or origin. However these vehicles are often grossly overloaded with both people and goods, driven at speed over long distances on poor roads and are not engineered for the task being demanded of them.

## The 'Africar'

In the early 1980s, Tony Howarth, an English journalist and photographer with a background in engineering, attempted to address these issues by designing a vehicle

he christened the 'Africar'. It was a vehicle intended specifically for the bush to be built in the region. After travelling widely in Africa in vehicles ranging from Land Rovers to an Austin Maxi he began to consider how personal transport could be improved and locally built.[5] He aimed not only to provide affordable personal transport, but also to prevent limited funds leaving African nations through the regular importation of vehicles. Howarth's Africar project set out to provide a vehicle robust enough to be reliable in the rough terrain of the bush, while at the same time being sufficiently inexpensive for the African mass-market. The Africar prototypes were designed to use mechanical components from other manufacturers such as engines and drivetrains taken from the Citroën 2CV, which were both air-cooled and rugged thanks to the 2CV's agricultural origins. The intention was to later develop these mechanical components specifically for the production of the Africar.



Fig 1: On display at the Lakeland Motor Museum, UK, one of the believed two surviving Africars.

The proposed vehicle was innovative in many ways, having a very wide track to cope with the ruts left by heavy trucks, and hydromantic suspension to cope with corrugated roads. The bodywork was constructed using epoxy-coated bonded plywood, which could be repaired with local labour, and without specialist equipment and materials. The unconventional wooden construction, it was argued, would also simplify the establishment of small factories of relatively low output in the regions where there was demand for the car. Howarth has since stated this style of construction was only meant as a proof of concept, however, the later vehicles were intended to have a tubular space frame chassis, with a covering of stainless steel flat panels.[6] In April 1986 Howarth formed Africar International Limited (AIL) rented a small factory in Lancaster, northeast England, as a base for developing and building the car.

The prototypes received considerable attention, not least in the UK, after a four part television documentary series was commissioned by Channel 4 television and broadcast in May 1987.[7] The series allowed Howarth to challenge conventional thinking on transport needs in the developing world and discuss the development of the three Africar prototypes. The documentary covered a successful journey from the Arctic Circle in Norway, through Europe and North Africa to the equator to test the vehicles, as well as to create an engaging structure for the program. The series was written, filmed and directed by Howarth himself, with help from a small team. A book, also written by Howarth, which briefly appeared on the UK bestseller list, accompanied it.[8]

A recent article in the *Engineering and Technology Magazine* reviewing the Africar 30 years on it stated: 'With publicity this good, Africar's success seemed guaranteed'.[9] To provide funding Howarth capitalised on the television series and launched an investor's scheme and began to take deposits for vehicles. Potential customers were told cars would be delivered to them but it is unclear if a time scale was given. However, the car was still very much a prototype, with the funds used to secure further investment and as capital to further develop the Africar's engine and drive train. As a result the delivery dates for customers' Africars were delayed as the cost of developing a drive train specifically for the vehicle spiralled upwards.

A Serious Fraud Office report of 1996/97 stated:

In February 1988, Howarth attempted to raise approximately £5 million of funds by converting Africar UK Limited into a public limited company and offering shares to the public. The flotation did not proceed because the company's accountants refused to certify in the prospectus that the licence to manufacture Africars, which was the only asset the plc owned, was worth £8 million. By July 1988 new investments had all but dried up. AIL could not pay its staff their wages.

It continued:

On 18 July officers from the Lancashire Constabulary Commerce Branch seized the company's documents and the landlord recovered possession of the factory. Howarth at the time was in the USA trying to raise further investment. He remained outside the UK's jurisdiction until he was arrested and charged on his return in October 1994.[10] The trial judge told Howarth when he was finally tried in 1994 after returning from US: 'You were seduced by your inability to face facts'.[11] Howarth was sentenced to 14 months in prison.

The Africar's demise seems partially as a result of unrealistic timescale for the vehicles development due to the surge of interest generated by the four-part television documentary. Howarth, understandably it could be argued, felt unable to turn down the offer of such publicity for a project that was not driven by economics but by a mixture of idealism and well-meaning social conscience. The ignominious end of the project for Howarth however was also the end of the Africar with its laudable intention of making Africa less reliant on imported vehicles.

### The 'Uri'

A more successful car for the African bush emerged in the1990's with the 'Uri' (Namibian for 'jump'), initially developed by a Kalahari farmer, Ewert Smith, as a simple and robust 4x4. Smith ran a 4x4 touring business as a side-line to agriculture but due to the cost of vehicles and spares he began exploring alternatives to mainstream vehicles. Using Toyota running gear, combined with a chassis and bodywork of his own design, he developed what became the Uri. A marked difference when compared to the Africar was that the concept was 'home-grown' with Smith developing the vehicle purely for his own requirements rather than what one might describe as emerging from the benevolent post-colonialism demonstrated by the Africar project. However, in the late 1990s Adriaan Booyse, an IT entrepreneur, saw the vehicle on Smith's farm, bought the concept, patented it and developed the

prototype as he saw commercial potential in the design.

His company initially built 15-20 vehicles a month but the target market soon moved away from rural personal transport to vehicles for the mining industry as well as police vehicles, game viewing vehicles and general utility vehicles. Booyse stated in an interview with the South African Financial Mail in 2004:

We researched this market thoroughly, and found there was a gap. Industry wants a low-maintenance, rugged and economical vehicle without the frills - a mechanical mule, not an over-engineered vehicle. That is what we designed.[12]

The talk of *industry* rather than private buyers as the market for the vehicle reveals that despite the Uri emerging as the only African designed motor vehicle, built in in the region for African customers, it has not evolved as a vehicle for personal private transport.



Fig 2: The 'Uri' pickup truck: The only indigenously designed and produced car for the African bush.

The Uri concept was later to run into financial difficulty and was sold again in 2006 to the Ngwane Defence group in South Africa.[13] The company continued to market the vehicle as a specialist industrial pick-up but also increasingly as a military utility vehicle. Though far less expensive than imported 4x4s it has remained out of reach for most. Produced in relatively small volumes of several hundred a year, it remains the only indigenous vehicle for the bush produced by an African company.

### **Mobius Motors**

More recently the 'Mobius', an inexpensive yet rugged car, is under development in Kenya. And in an echo of the Africar 30 years earlier this is again intended as a simple, robust car that can be locally produced and is the brainchild of Englishman, Joel Jackson, who describes himself as a 'social entrepreneur'. Nairobi-based Mobius Motors was founded in 2010 with Jackson quoted as saying in an interview with *Wired* magazine in 2008:[14]

[1] saw a market opportunity for the vehicle. I thought it could be gamechanging if we could provide a platform for mobility that would bring out latent entrepreneurialism across Africa. We want to enable people to innovate, by doing that; we can unlock huge growth in transport-related services. We believe what we're doing will create huge social change.

There is currently just a single prototype of the proposed production car deigned and built in Kenya. Mobius Motors has been asking for deposits since 2010 having announced that production was planned to start in 2012. At this point (November 2013) no production cars have yet been built with many of the problems that faced Howarth's Africar thirty years earlier still remaining.



Fig 3: The prototype 'Mobius': a proposed design for an inexpensive and robust vehicle for rural central-Africa.

## **Centre-Periphery**

Success for all of these vehicles, as we have seen, has remained problematic and although these three examples are not the only domestic attempts to build cars for the African bush, they demonstrate many of the difficulties of developing and building a car for the continent's rural needs. As we have seen in the case of the Africar and the Mobius, westerners visiting rural Africa have identified the lack of suitable personal transport and attempted to address it. However, market forces, and, by extension, western interests, have repeatedly impacted on attempts to build a car for the bush with major car manufacturers increasingly favouring an economic model that incidentally also further disenfranchises rural Africans. The centre–periphery model may go some way to explaining this situation but there are also other economic factors at play.

The relationship between developing countries (the periphery) and developed western economies (the centre) can be characterised as the export of capital from the former to the latter in exchange for goods and services. [15] In the case of the motorcar this is demonstrated by the continued reliance on imported vehicles from the developed world and the failure of an indigenous car industry to develop in Africa. This neocolonial model suggests a continuing reliance on imported manufactured goods and services to the economic periphery, which in turn thwarts indigenous development efforts and perpetuates the processes of cultural Westernisation in the developing world. This in turn further secures the West's market outlets and therefore the cycle continues. A similar schism exists between the rural regions of Africa and the metropolitan centres where a countries prosperity and financial liquidity is usually centred. Intra-African tensions create further barriers still to rural transport solutions, with conflicts creating unstable markets, which are then unattractive to investors, particularly for the long-term development of complex products such as motor vehicles. However, industries such as those extracting raw materials can often still prosper in these circumstances, as the returns are larger and more rapid.

Persuasive as centre-periphery model is as a way of explaining the lack of an indigenous car industry it is not the whole story however. Increasingly, the western car-makers, in their own saturated markets with increasing environmental demands, have moved ever further from simple, basic vehicles, to vehicles that maximize profits by increased margins. A large luxury car intended for Europe may be marketed

at 3 or 4 times the price of a small car but this luxury model may only cost twice the amount to manufacture. The value complexes, in this case the brand values, are used to justify this much higher price and are seen as key to western carmakers continued profitability. Constructing inexpensive vehicles in large numbers to achieve economies of scale and thereby sell them cheaply, a model that would suit rural Africa as it did rural America 100 years ago with the Ford Model T, is an approach that may keep a factory busy, but does not produce the same level of profitability, meaning it is no longer a priority for western car makers.[16] This has recently been demonstrated in India with the relatively poor sales of the Tata Nano, the first sub-\$2000 new car.[17] This move to increased margins by western car makers has meant that cars produced in the west are becoming even less appropriate to rural African needs as they become more complex, costly and difficult to maintain.

With the increasing investment from China in Africa's infrastructure the automotive market throughout the continent may be about to change again. As new roads are built using Chinese finance as a means of transporting extracted raw materials, so China is starting to manufacture cars for Africa which were first intended for the rural home market but which now have a reduced sales since the economic down-turn. While the long-predicted Chinese 'invasion' of the European and American car markets may not have materialised, Chinese manufacturers have been working to secure less developed markets that have the potential to form the bulk of the global car sales growth over the next two decades.[18] These vehicles, often virtual copies of Japanese pick-ups and saloon cars, are finding a ready market in Africa due to their relatively low cost, kept low by local manufacture and increasing use of locally sourced raw materials. This partial filling of both the urban and rural transport vacuum in Africa by Chinese

designed vehicles, built in Africa, may be the next stage in supplying the rural transport needs of the continent. Furthermore, with factors ranging from post-colonial external interests, economic instability, affordability and suitability remaining problematic the challenge of developing an indigenous car for rural Africa remains much as it did a generation ago.

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