Filling the family's transport gap in sub-Saharan Africa: young people and load carrying in Ghana

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INTRODUCTION

This chapter considers the implications of sub-Saharan Africa's transport gap for young people. In urban and rural areas, wherever transport services are deficient, or households lack the economic purchasing power to acquire transport equipment or pay fares, much everyday transport work needed to sustain the family and household is delegated to young people, especially girls. In most regions this involves putting the load in some sort of receptacle – perhaps a plastic container, metal bowl, hessian sack, cardboard box, or a locally woven basket – and then balancing it on the head, which is often protected by a small coil of cloth to make the burden more comfortable. Water and fuel commonly predominate among the loads being carried, even in urban areas, because of the widespread absence of piped water and electricity, but other items such as agricultural produce and groceries are also regularly transported in this way. Loads are carried to sustain the household directly, in terms of providing water, fuel and food, but also to enable participation in the cash economy.

Load carrying as an activity undertaken by children has been largely invisible in studies of African economies, since children's work activity as a whole has been commonly subsumed under women's or family labour, especially in rural contexts. Drawing on

some preliminary empirical research in southern Ghana, we examine the scale of load carrying and consider its potential impacts on young people's education, health and well-being, bearing in mind that there may be much more to carrying than mere physical weight: load carrying is embodied and arguably performed and enacted as social position.

YOUNG PEOPLE, GENDER AND LOAD CARRYING IN THE LITERATURE

The recognition of African women's load carrying efforts in the development literature can be traced back to key papers by Doran (1990) and Bryceson and Howe (1993), which drew on village-level transport surveys and broader research on gendered labour patterns to reveal the predominance of women in rural household transport across many African societies. By contrast, however, there has been remarkably little recognition of children's and young people's contribution to load carrying (Porter et al. 2007; for a rare exception see Malmberg Calvo 1994)[i]. Children and young people's domestic transport work is commonly subsumed under women's work. In part this may be attributable to the fact that African youth has only recently begun to move towards centre-stage as a focus of social research in African societies, despite their long-standing position as major players in the continent's predominantly informal economies (de Boeck and Honwana 2005:1). The most detailed information on young people's contribution as load carriers to date probably comes from studies of girl porters in Accra (Agarwal et al. 1994; Grieco et al. 1996).

It is important to reiterate, at this point, the significant gender dimension to load carrying, since this affects patterns of porterage among youth as well as adults. Load carrying, as a

low-status activity, seems to be regarded culturally as a 'female' activity in most African societies (Malmberg-Calvo 1994:9). As a Birom man on the Jos Plateau, Nigeria, observed to one of the authors, as he walked, load-free and without apology, alongside his heavily-burdened and heavily pregnant young wife, '*to see a man carrying things on his head in our culture is not allowed'*. Young boys are often to be seen carrying water and firewood with their sisters in this as in other regions but, so far as domestic supply of goods like water and fuel wood are concerned, boys above about 15 years usually only head-load in emergencies (e.g. Doran 1990:30; Malmberg Calvo 1994:28; Potgieter et al. 2006:15). When transport technology is introduced, however, boys or men commonly take over transport tasks (Flanary 2004; Mahapa 2000). Any work associated with mechanized transport, including driving and working as a minibus call boy or mechanic tends to be viewed as a male preserve (Porter 2008).

YOUNG PEOPLE AS LOAD CARRIERS IN SOUTHERN GHANA: EVIDENCE FROM TRAFFIC AND LOAD-WEIGHING SURVEYS

This chapter is based principally on work conducted in Gomoa, one of Ghana's poorest districts. The coastal savanna district is largely dependent on agriculture (maize, cassava, peppers and tomatoes) but suffers from unreliable rainfall, lack of credit for farmers, strong fluctuations in agricultural prices, high input costs and poor roads. Labour shortage is also a problem: many young men have migrated out to the forest zone where they can participate in more lucrative cash crop cultivation. Research focused on four off-road settlements, located between 3 and 8 kms from a paved road. All are primarily Fante villages, though in each there are some stranger farmers from other parts of Ghana. We

also worked further north in a fifth (forest zone) village, Aworabo, in Assin[ii] district. Assin has a much stronger emphasis on cash crops than Gomoa; cocoa is an important and relatively lucrative local crop. In Aworabo, 25 km from the nearest paved road, there is ample farm land and consequently the Twi-speaking indigenes have been joined by settlers from other areas, including Gomoa.

Our attention to the issue of load carrying among young people first came about as a result of research we[iii] conducted on women's access to markets in these five villages in the late 1990s. We undertook a series of traffic surveys, which drew our attention to the remarkably large number of children carrying loads. When we had the opportunity to extend the work with an action research project focused on introducing and monitoring the impact of Intermediate Means of Transport (IMTs) in the villages, in 2000-2003, we incorporated load-weighing in the research design. The action project inolved a range of transport equipment (principally locally-made push carts and bicycles) and was aimed at assisting women to access local markets.

Loads were weighed in the course of traffic surveys conducted both prior to the introduction of IMTs in 2000, and approximately 20 months after their introduction in June/July 2002[iv]. Head loads were counted and weighed, on both a farm day and a market day, along farm and market routes. The weighing (by a team of assistants from two local universities) commenced as dawn broke and continued until 6 p.m. June/July was the most appropriate time of year for this exercise because we wanted to capture conditions in the harvest period, but prior to the September peak when people would be

too busy to stop. Weighing points were situated on approach routes to the village, but beyond the principal village water points (because our principal focus was on agricultural produce movements).

In the period between the two load weighing exercises we also charted the impacts of the IMT intervention on the lives of village children. Additionally, we conducted interviews about load carrying with over 30 individual school children (outside school), children who do not attend school, groups of primary and Junior Secondary School children in class, and individual parents and teachers. We tried to keep the interviews with children as informal as possible: they were easily intimidated and in the initial interviews only the bravest in a group would speak. We asked about time spent headloading, the nature of the journeys undertaken, the perceived impact, any income or other benefit, and parental and teacher attitudes to headloading. The interviewing on children's travel (with and without loads) was subsequently extended to include another two junior secondary schools and two senior schools serving the study districts.

In our load weighing surveys we found that, despite the positioning of the weighing points beyond the water points (which were the focus of many more shorter journeys by children carrying water for domestic supply), the load carrying journeys of children and young people under the age of 18 were almost as numerous as load carrying journeys by men over 18 years (though women over the age of 18 years undertook almost half of all load carrying journeys; see Appendix 1). Thus, women overall undertook 47per cent of load trips, men 27per cent, girls under eighteen years 12per cent and boys under eighteen

years 14per cent. The adult men we recorded carrying loads were mostly carrying cash crops for onward sale rather than goods for domestic use.

In terms of individual weights carried, girls under 18 years were carrying loads of up to 36 kg[v] and boys in the same age-range up to 39 kg (Table 1). During our fieldwork we observed that girls of 15+ were regularly carrying 20-30 kg. The commonest head loads carried by young people and adults were cassava, maize, firewood, vegetables and charcoal. The heaviest loads were recorded at Abora, where firewood and wooden pestles are carried regularly to the district headquarters for sale. Young men may help their wives and mothers to carry firewood intended for sale, but will leave the village before dawn in order to avoid observation (since wood carrying is considered inappropriate for men.) Consequently, they were largely unrecorded in the survey: they deliberately left before the recorders arrived at the settlement on the survey days.

Table 1: Maximum loads carried by children according to age

Data from weighing exercise, Gomoa and Assin districts, June-July 2000

Age	Male (in kg)	Female (in kg)
0-6	7	6
7-8	8.5	12
9	10	11
10	10	18
11	15	17.5
12	19	18
13	18	22
14	20	27
15	28	21
16	26.5	36
17	39	34
18	25.5	35

THE PRACTICE OF LOAD CARRYING AMONG YOUNG PEOPLE IN THE STUDY AREA: THEIR OWN AND OTHERS' PERSPECTIVES

It is evident from the interviews with young people that they simply *expect* to headload. Children are widely perceived as a domestic resource by adults and are required to carry

a range of loads for their parents and other family members. This applies to both girls and boys (though as noted above, boys will usually not carry loads such as firewood and water intended for domestic use beyond the age of about 15 years.) At Abora, the study village most heavily involved in commercial firewood trade, both boys and girls from the age of about 10 say they regularly carry large loads of firewood to the district headquarters (about 5 kms away) and sell it there before they come to school: a journey of around 10 kms.

> '*I sell [firewood I've collected myself] on the weekend or when I've no money on me. I write some notes that I'm sick [to explain absence from school]. I started selling when I was 10 years old. [prompt] I carry about three-quarters of a woman's load. In Apam I get 3000 or 3500 cedis for every head load… if I have no firewood to convey [my parents] give me theirs to sell – I share the load with my junior brother then'*. [Kofi, 14 years, Abora].

Younger children accompany their mothers to the market early in the morning, carrying their own small firewood load to sell – some give the proceeds to their mothers, others are allowed to spend it themselves: '*if the little ones get 1000 cedis for selling wood, they may use it to buy things and to hire bikes – it's all gone before they return home to Abora'* [Essi, young mother c. 20 years, Abora].

Although the data from our traffic surveys suggested that girls carry more regularly and that their loads are often heavier than those carried by boys of the same age, children both in class and informal discussions often disagreed [and not always in accordance with their gender] about whether boys or girls carry the heaviest loads. In Aworabo, where we

conducted a class discussion on travel and headloading with class 6 primary school pupils, of the 23 pupils (all aged between 12-15 years), 21 said they regularly carried goods for their mothers. The two exceptions were both boys. The heaviest loads they carry are cocoa and, above all, firewood. The boys were happy to be involved in carrying cocoa, a commercial crop, saying '*we have the strength'*, but complained that they disliked carrying firewood (which in this village is principally for domestic use). This attitude accords with the common male view regarding carrying products for domestic as opposed to commercial use. One 15-year-old boy remarked, '*we feel shy to carry the firewood because the girls will be laughing at us*'. In another discussion group with young in-school and out of school boys (all under the age of 15) in Lome village we were told,

> '*here it is not the work of men to carry firewood, but sometimes we can carry it from the farm to a certain place for the woman to bring home… From 13 to 14 years … our mothers know that we should not carry firewood, so they would not load us any longer, but we can still carry it to a certain point [unobserved] for them to bring home.*'

The common parental attitude to load carrying among children and young people is that this is a necessary and normal contribution to the household. The load weight will be increased as the child grows older and stronger. Tiny children of three or four years, especially girls, will often be given a small plastic bowl of water to carry. A number of parents suggested (very similar) guidelines regarding loads they would expect a child to carry at particular ages, roughly as follows: a child of 4 to 5 years, whether boy or girl,

should be able to carry half a rubber of maize (4 kg); a child of 8 should be able to carry a full rubber of maize (8 kg) this being approximately one-quarter of an adult load; a child of around 10 could carry 2 rubbers (16 kg) or a full tray of cassava (perhaps 20 kg), and before the age of 15 years they may be expected to carry 4 rubbers (32 kg). One mother suggested that stature could influence load carrying ability: her 10-year old daughter could not carry so much as others her age: *'because she is very short I don't want to load her'*. None wished to distinguish different load capacities by gender for the younger age groups, though one mother observed that '*girls start [carrying] from 5 years, [the] boy can start if he chooses to do so at the same age, but you can't force him… my 6 year old does not carry at all, because he is stubborn*'. By the age of 15 a girl is expected to be able to carry a full adult's load, ranging from around 40 to as high as 70 kg, whereas boys are thought to mature later to a full adult's load. The maximum loads carried by children of different age groups we weighed (Table 1) conform roughly to their observations[vi]. Comments in informal discussion with adults in the villages suggested that often it is foster children who experience the heaviest burden – a load perhaps 'beyond their age' in terms of headloading, as in many other domestic duties (Bledsoe and Brandon 1992). More research is needed on the specific burdens faced by fostered children.

EDUCATIONAL AND HEALTH IMPACTS OF LOAD CARRYING ON YOUNG PEOPLE

The impacts of load carrying on children and young people's educational attainment may be substantial, especially in areas where the transport gap is significant. Much load

carrying is undertaken on the way to and from school, particularly in rural locations. Indeed, in our study area young girls seem to be more commonly observed carrying a bucket of maize or a bag of groceries on their head than a school bag or school books. Corn or other grains for the grinders, for instance, will be taken on the way to school, then picked up afterwards. Thus Felicia, a girl from a satellite village, described how she carries a bucket of rice from home every day 3 kms to the grinders in the village, Aworabo, where her school is located.

Such multi-purpose journeys may substantially lengthen both route and journey times to school. School teachers working in the five study villages complained that these domestic transport tasks undertaken before or on the way to school delayed children's arrival and in some cases made them late, a punishable offence. Only in the case of Assin Foso, a local town, did we find an exception to this pattern of load carrying on the journey to and from school. While parents still expect children to carry for them after school, there is apparently less need in this urban context for most (town-based) children to combine the school journey with other tasks to the same degree evident in the villages, because most services lie in relatively close proximity to urban homes.

In our study villages, load carrying, especially on market days may require absence from school for the whole day [as in Kofi's case, above]. Particularly around harvest time and on market days, the need to transport large quantities of goods from village to market often led to children being required by their parents or other family members to go to market instead of school. :

> *'[during the cocoa harvest] some from distant villages stay away – you have to give them time to rest- they complain of tiredness. If parents need goods to market at Odumasi, children don't come to school. So there's lower attendance on Wednesdays'* [male JSS teacher, Aworabo].

In some cases children were carrying goods to market to earn money from other villagers who needed assistance. Where the market is distant from the school attended, or the child's presence is needed to move goods around within the market, or to mind the stall during the day, truancy may be preferable for the child to arriving late at school, given the punishments that are likely to follow.

Regular lateness and truancy will inevitably impact on many village children's performance at school and has been noted as a common cause of withdrawal from school in Ghana, especially among girls (Avotri et al. 1999:51,122-3). Additionally, some teachers (perhaps significantly mostly young teachers without children of their own) and many children in our study villages observed that carrying such heavy loads impairs pupils' subsequent work in school, due to tiredness, headaches and associated lack of concentration. One (male) teacher suggested that load carrying affects girls' educational attainment more than boys because they are expected to carry more on the way to school.

The health impacts of load carrying are more controversial: we certainly encountered some mismatch between the discourse of parents and young people where this topic is concerned. The parents we interviewed in our five village study were usually keen to stress the way loads are graduated according to age and the value of children's work in

general as a mode of socialisation into adult life. Girls, in particular, we were told are trained in load carrying from an early age: there is no issue for the majority (though occasional maltreatment of fostered children was recognized in this respect). The children and young people we spoke to also clearly accept their labour responsibilities in household maintenance, but when we enquired about their experiences of load carrying, they frequently referred to head ache, waist pain, neck pain, and the exhaustion. As noted above, some teachers and children suggest the pain and exhaustion is sufficient in some cases to impact negatively on school performance. In the class discussion with 12-15 year-old pupils at Aworabo, all 23 children who regularly carried loads for their mothers said they often suffered neck, waist or head pains from carrying produce. Two of the girls and one boy said they had missed school in the previous few weeks because they were too tired from headloading. However, other questions arise: are there longer term consequences of carrying heavy loads through childhood which are felt in adulthood or old age? Are there particularly significant impacts on females, if they have carried heavier loads than males in childhood? Are there consequent inter-generational impacts?

A review of transport-related literature provides occasional reference to potential areas for concern, especially regarding girls and women in pregnancy and women in later life. Bryceson and Howe (1993) refer to Kenyan medical sources showing high incidence of backache among Masai women and treatment of 'Kikuyu bursa', osteo-arthritis of the soft tissue of the knee caused by load carrying (citing Curtis 1986) and women fuelwood carriers in an Ethiopian survey who reported high rates of miscarriage. Doran (1990: 58-) suggests that energy-intensive work can be detrimental to foetus formation and breast-

milk capacity. Malmberg-Calvo (1994) notes that vertebral column deformation may occur, while a pamphlet produced by WaterAid (96), suggests impact of water loads has especially serious implications for girls, given their immaturity – notably damage to head, neck and spine. It notes that deformity of the spine in extreme cases can lead to problems in pregnancy and child birth. Agarwal et al.'s (1994) study of girl porters in Accra referred to earlier does not distinguish among the 'many health problems' (p.8) but notes that many self-medicate regularly to numb pain and allow continued work. Much of this material is limited in terms of the scale of enquiry and in some cases hypothesizes impact rather than providing firm evidence: this is an area where more detailed research is needed.

INTERMEDIATE MEANS OF TRANSPORT: A POTENTIAL LOW COST SUBSTITUTE FOR HEADLOADING?

In our action research study we introduced a set of IMTs which would substitute for headloading at relatively low cost (compared to motorized transport). These were offered to villagers on credit, with women given priority. It is useful to outline some of the findings relating to young people, because of the policy implications regarding IMTs as a possible substitute for headloading.

When the IMTs were introduced in the project, we had not adequately appreciated the importance of child labour in headloading, nor children's potential contribution to the IMT operations. After the IMTs were introduced, many children were found to have used the equipment (notably bicycles and push trucks) for a variety of different purposes,

including leisure. This prompted further investigations with teachers, school-going and out-of-school children and their parents. Households who took project IMTs were mostly those with child labour available to operate them. As one old women pointed out, *'If you have children to operate it [push truck] it is easy to collect one, but if there is no child you cannot operate it.'* (Lome, January 2002). Whereas young boys undertake headloading as a duty, they were found to treat IMT operation as a game:

> '*it is very fantastic when you push'; 'we enjoy it very much and push willingly'; 'since the truck is there I find it easier to work on the farm'; 'we were not enjoying the work at the farm, but now because of the truck we want to go there.'* [Group of young boys, Lome, July 2001].

Unfortunately, because we had not anticipated child operation and thus did not provide adequate safety training for children at the outset of the project, some minor accidents occurred. Interestingly, as is the case with technology more generally, the operation of the push trucks was very quickly appropriated by young boys: '*My grandson just takes the truck out and ten boys will be there straight away to go to farm… after the farm work is done the boys play on it until it's time to fetch water'* [older man, Adabra, July 2002]. Girls were reportedly not involved because they are '*not as strong as boys'* and because '*girls should be working at the kitchen'* [men's group, Lome, July 2002].

We attempted a preliminary assessment of the substitution impact of our project IMTs for headloading, including headloading among young people, 20 months after their introduction. The traffic surveys conducted in June/July 2002 suggested that project IMTs may have reduced maximum load size for young people under 18 years, and this

was supported to some extent by qualitative findings which indicated that young people now did less headloading, although the boys were heavily involved in operating the push trucks. At village review workshops, young people's work loads were specifically observed in two of the villages to be lower as a result of IMT adoption. In Adabra, men argued that the children had more time to play now, rather than less, because of the reduction in headloading, while at Abora the children were said to do less work because now they could just go once per day for water, instead of making three or four trips. At Aworabo women observed that whereas boys used to play football after school, they now helped operate the IMTs (which offers another type of play). However, so far as girls are concerned the reduction in headloading may not be entirely beneficial, if they previously earned money as porters, a point made by some JSS schoolgirls at Sampa: '*previously we helped people to convey maize and we got maize [in payment], but now with the truck people do not call us again'.*

CONCLUSION

In Ghana, children carrying loads are perceived by adults to be performing a natural function of youth. The carrying they are expected to do, in the absence of alternative cheap and reliable transportation, can be interpreted as embodied, performed and 'naturalized' social position**.** Portering is a very low status occupation. Children and young people tend to occupy the lowest rung in the Ghanaian social hierarchy (Porter and Abane 2008). Young porters do not merely perform their tasks but, through the bodily positions they take up, are seen to enact their social position as servants to their (adult) masters. Carrying is arguably a daily reaffirmation of mobile servility. The complex

intertwining of perceptions about physical capabilities and gender stereotyping supports this interpretation: trucks are too hard for girls to push, yet girls are expected to contribute more than boys when it comes to porterage. Girls, in particular, are trained in the embodied skill of headloading because it is a skill on which they will be expected to draw throughout their lives. The load they carry is increased gradually over time, in this careful body management. They can be construed to be building up body capital (Jackson 1997): flexibility, muscle tone and strength will all be developed over years of hard work.

However, as we have discussed, long hours spent carrying loads may be extremely damaging in terms of young people's future life chances. Children's time expenditure on headloading in the survey villages appeared to be very substantial, though variable according to gender, age, and season, so that we were unable to quantify this. Our evidence for impacts on both education and health is limited by the scale of our enquiry. Carefully disaggregated studies of women's, girls' and boys' load carrying effort in different cultural and environmental contexts are urgently needed across sub-Saharan Africa, given the potential implications of load carrying for health and educational achievement[vii]. Perhaps specific kinds of IMTs such as push trucks and load carrying cycles could reduce the burden of carrying, but we will not know their potential, including the gendered impacts of uptake, without more detailed research.

Appendix 1: Number and percentage of head/cycle load trips on specific village routes, June-July 2000*

Village name **Village name** **F=farm day,** **M=market day**	**Women**	**Men**	**Girls (under 18 years)**	**Boys (under 18 years)**
Gomoa-Abora:				
Apam path:F	57=55%	22=21%	12=11.5%	13=12.5%
Ankamu road:F	27=27%	21=21%	23=23%	28=28%
Brofoyedur:F	22=37%	16=27%	11=18%	11=18%
Apam path: M	104=76%	11=8%	11=8%	11=8%
Gomoa-Adabra:				
Farm path F	49=55%	28=32%	10=11%	2=2%
Akoti junct. M	22=59%	9=24%	4=11%	2=5%
Gomoa-Lome:				
Well path F	127=44%	65=23%	41=14%	54=19%
Nduam road F	95=40%	57=24%	30=13%	54=23%
Oguan road F	75=45%	51=29%	24=14%	20=11%
Gomoa-Sampa:				
Brofo junc. F	46=43%	38=35%	14=13%	10=9%
Okye river path F	39=45%	40=46%	4=4.5%	4=4.5%
Akropong junc M	110=53%	53=25%	22=10.5%	24=11.5%
Brofo junctionM	38=70%	10=18	4=7%	2=4%
Assin-Aworabo:				

Japan bridge F Farm path F Odumasi path M	51= 39% 34=44% 29=41%	43=33% 29=38% 34=48%	18=14% 2=3% 7=9%	20=15% 12=15.5% 1=1.5%
Total	925=47%	527=27%	237=12%	268=14%

* Cycle loads consist solely of three loads in all, all ridden by men in their 20s and 30s. The survey indicates the remarkably low usage of cycles for load carrying in the study area.

Appendix 2: Maximum head-loads carried on specific routes in each village (in kgs), surveys June-July 2000

Village name **F=farm day,** **M=market day**	**Women**	**Men**	**Girls (under 18) Age if under 16 yrs indicated**	**Boys (under 18) Age if under 16 yrs indicated**
Gomoa-Abora:				
Apam path M	58 kg	21 kg	34 kg	36 kg
Apam path F	61	52	22	31
Ankamu road F	30.5	27	20.5	21.5
Brofoyedur F	36	23.5	15 (12 yrs)	21.5
Gomoa-Adabra				
Farm path F	33	45	9 (14 yrs)	15
Kumakope M	42	45	22	22
Akoti junct. M	40	32	22	20
Gomoa-Lome:				
Well path F	48	43	22 (13 yrs)	39
Nduam road F	24	38	36	34 (15 yrs)
Oguan road F	43	45	25	25 (15 yrs)
Gomoa-Sampa:				
Brofo junc.F	32	23.5	24	23.5
Okye river path F	42	31	18 (13 yrs)	19 (14 yrs)
Akropongjunc. F	42.5	46.5	25	19.5
Brofo junction M	44.5	10.5	26	24.5

Assin-Aworabo:				
Japan bridge F	37	26	30	18 (15 yrs)
Odumasi path M	36	35	12 (14 yrs)	11

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[i] Though there are many broader studies of children's work (e.g. Robson 1996).

[ii] We originally intended to confine our study to Gomoa but were requested to include a village in Assin district by the Ministry of Agriculture which was collaborating in the project.

[iii] The earlier market access research was conducted by Gina Porter with Frank Owusu Acheampong as research assistant. In the second study Kathrin Blaufuss and Frank Owusu Acheampong were both RAs.

[iv] We comment here principally on weighing and traffic data for 2000 because this relates to conditions before our project transport equipment was introduced and is thus more representative of load carrying conditions in the region than post-intervention data.

[v] Doran (1990:11) refers to women's 'normal' loads of 25-35 kg, 'though loads of up to 60 kg have been reported'.

[vi] In a related study in northern Ghana, Flanary (2004) weighed loads for one day within two compounds during the rains. In the compound where there were many young children, girls aged 8-14 years carried 72% of water, with individual loads of 13-26 kg carried over c. 0.5km

[vii] Gina Porter is currently leading a research project on child mobility which includes further work on children and young people as load-carriers (see www.dur.ac.uk/child.mobility/).