

## **Koobi Fora Field School Information Packet 2014 Field Season**

The Koobi Fora Field School is a unique opportunity for undergraduate and graduate students to learn the basic principles and field methods of paleoanthropology “on location” at the most productive and spectacular early hominid region in the world—Koobi Fora. Koobi Fora encompasses about 1000 km<sup>2</sup> of Pliocene, Pleistocene and Holocene sediments within Sibiloi National Park, one of the most isolated areas in Africa. The Koobi Fora Field School (KFFS) is a program dedicated to hands-on introductory training in all of the major disciplines within paleoanthropology: paleontology, archaeology, geology, taphonomy and ecology. Experts from the National Museums of Kenya and George Washington University, as well as other universities, provide instruction, sometimes in lectures and labs, but more often within the context of on-going field projects. For this summer, we already have commitments from several exciting and well-known scholars, including Dr. David Braun (Plio-Pleistocene archaeology), Dr. J. W. K. Harris (Plio-Pleistocene Archaeology), Dr. Brian Richmond (hominid anatomy), Dr. Stephen Merritt (zooarchaeology), Dr. Carolyn Dillian (raw material sourcing), Dr. Purity Kiura (isotopic studies), Dr. Emmanuel Ndiema (Holocene archaeology).

Students will have the opportunity to examine and study archaeological and paleontological specimens at the National Museums of Kenya, the largest repository of early hominids and Early Stone Age archaeological material in East Africa. In addition, students will be able to study the ecology of African savannas directly in the Laikipia Plateau, in the shadow of Mt. Kenya. A great diversity of flora and fauna thrives in this area, including the second largest elephant population in Kenya. In addition, one might catch a glimpse of lions, leopards, cheetahs, hyenas, jackals, zebra, giraffe, eland, hartebeest, impala, waterbuck, gazelle, and several monkey species. This one-week segment of the program serves as an invaluable learning experience in the quest for understanding the ecosystems in which early hominids lived, 1-4 million years ago.

Four weeks will be spent in the Koobi Fora region itself. This area in northern Kenya is only sparsely populated with locals known as Dassanech, Turkana and Gabbra, and dry-adapted wildlife such as gerenuk, Grevy’s zebra and oryx. “Koobi Fora” is a Gabbra phrase meaning “place of the Commiphora,” a bush that is common in the area. It is only since 1968 that this area has been inhabited by another small group—paleoanthropologists. But since then, the area has become world-famous for its extraordinary paleontological deposits—including early hominids such as KNM-ER 1470, dated to 1.9 million years old and its rich archaeological traces, from both the Oldowan and Acheulian stone tool industries, dated to 1.4-2.0 million years ago. Students of the KFFS will not only learn the field techniques used in paleoanthropological research, using state-of-the-art methodology and equipment (GPS, GIS, photogrammetry), but will also learn the thrill of discovery as they participate in on-going projects. They will help excavate archaeological localities that were buried from a few thousand years ago to over two million years ago, search for fossil remains of hominids, help in trying to interpret what they find in the context of human biological and behavioral evolution, and learn the fundamentals of savanna ecosystems. Recently our research on 1.5 million year old fossil hominin footprints was the subject of the cover story in *Science*.

## **Flights**

Please make sure that whatever flight you take that you arrive in Nairobi on evening of June 13th. Remember some flights may take two days to go from the US to Nairobi so check your arrival days and times very carefully. Also recognize that orientation starts early on June 14th, so do not overtire yourself with extensive layovers. If possible, try to avoid arriving in the middle of the night to ensure a good night's sleep before orientation.

## **Visas**

It is not necessary to get your visa before you depart for Kenya. On arrival into the airport in Nairobi, there will be a checkpoint where you will be able to get your visa. If you travel internationally often, make sure there are 2 completely blank pages in your passport. There will be a form for you to fill out, usually given to you on the plane before it lands. The visa fee is \$50 US Dollars and must be paid in cash. Your US dollars must be currency printed after the year 2000; otherwise it may be considered counterfeit and will not be accepted. Checks and credit cards are not accepted.

## **Pickup**

Immediately outside of the area where you pickup your luggage at the airport, there will be a waiting area where staff members from the Koobi Fora Field School will meet you to welcome you to Kenya and drive you from the airport to the hotel you will be staying at in Nairobi. It is important that you not go off on your own or attempt to arrange other transport. We will be there to pick you up! We will also arrange for you to have a hotel room on the evening of the 13<sup>th</sup>. If you arrive before the 13<sup>th</sup> of June or are planning on staying after the 26<sup>th</sup> of July you must make your own arrangements.

**Money**

The current exchange rate for Kenyan Shillings is about 86 Ksh/= 1US\$. You should bring enough cash with you for the summer. You will need \$50 for your Visa at airport. All of your expenses (food, accommodation) are built in to your tuition. You may want funds for ethnographic items that are sold along the road to northern Kenya. There will also be snacks, sodas, other libations available along the drive up to northern Kenya. The amount you bring is very much your own choice. Remember that in northern Kenya the local community is unlikely to have exact change for certain items. Students tend to trade t-shirts, pens and other personal items. As a rough guide many students have suggested that more or less \$200 should do.

You should also bring an ATM card that you can access cash from in Nairobi. Make sure that you notify your bank that you will be traveling internationally before you go. You should also have a credit card just in case. Travelers Checks are much less useful now than in the past as you can only cash them at banks and exchange places while you can access ATMs and change cash in many locations and at many times of the day or night.

**Communication:**

We will visit internet cafes while in Nairobi so that students can email or call their family and let them know that they have arrived safely. This is the best way to contact your friends and family. You should not expect to have telephone contact with anyone during the 4 weeks that we are in northern Kenya. However, cell phone coverage is increasing throughout Kenya. There is an option to either bring an unlocked phone or purchase a cheap phone while you are in Kenya which will be able to access the cellular networks in Kenya. Cellular networks have been known to work in areas as remote as Ileret but cannot be guaranteed. We will have a satellite phone with in case of emergencies. When we return to Nairobi you will be able to pick up the cellular networks as well.

### **What to bring:**

It is important to bring what you need and to not bring too much. Remember we are completely self-sufficient during our trip so it helps if we do not need to carry many heavy bags. You will find that camping equipment is expensive and difficult to find in Kenya. **Do not forget your tent.** Bring sturdy clothes that you do not mind if they suffer wear and tear. Bring one nice outfit that is easy to carry and limit the rest of your clothing to things that are appropriate for the field. We discourage students from bringing their own laptops or other items that need electricity. We should have all of the equipment you need during the duration of the trip. Do not bring laptops, things that plug in etc. unless you are prepared to leave them in Nairobi.

1. Tent, sleeping bag, sleeping pad, and sheet
2. Instructional handouts (this packet) put into a 3-ring binder
3. Field notebook, preferably with hard covers, large enough for 6 weeks of field notes; (Optional: notebook for rough notes)
4. Day pack
5. Flashlight, extra bulb, and enough batteries to run it for 6 weeks (warning: many students underestimate the number of batteries needed; bringing an efficient LED flashlight will cut down on the number of batteries you will need.)
6. 2 water bottles (at least 1 liter)
7. Personal medical kit: high spf sunscreen, chapstick, insect repellent, anti-itch lotion, aloe, antibiotics, aspirin/ibuprofen, antihistamine, vitamin supplements, anti-diarrheal, laxatives, feminine hygiene products etc. NOTE: If you are bringing any prescription medication, bring extra, as you may have difficulty replacing it if any gets lost or ruined, especially at Koobi Fora
8. Personal hygiene kit: toothbrush, toothpaste, towel, shampoo, conditioner, soap, comb, nail clippers/file, tweezers, small mirror (for shaving), Q-tips, Visine, hand-wipes, anti-bacterial hand lotion etc.
9. Anti-malarial medication: Malarone, Doxycycline or Lariam are prescribed in the US by doctors as anti-malaria pills. We have found that some students are susceptible to side effects from Doxycycline (sun sensitivity, acid reflux) and Lariam (vivid dreams, paranoia). In the past students have had fewer side effects with Malarone. You should consult a medical professional to determine the best option for you.
10. Camera –with a large memory card, as you will not have the opportunity to download any photos onto a computer
11. Sunglasses (students have, in the past, had difficulty with contact lenses because of the dusty and windy conditions); Unless you trust yourself to be careful with your sunglasses it may be a good idea to bring a cheap back up pair. The sun is intense in Turkana.
12. Rain gear (at least a good raincoat)

The Coleman Sundome 7ft. by 5ft. is a tent that is a good size and is reasonably inexpensive and can be purchased through Campmor ([www.campmor.com](http://www.campmor.com)). This tent is suitable for Turkana but the high winds and intense sunlight usually leave many tents

damaged at the end of the season. You can decide to invest more in a tent but be ready for it to be damaged by the end of the trip. Northern Kenya is not easy on tents.

NOTE: At Koobi Fora we do not have dependable access to electricity, so hairdryers, computers, rechargeable batteries, etc are not recommended and should be left in Nairobi.

Clothing: Daily temperatures at Koobi Fora can approach 110 degrees Fahrenheit in the middle of the day. However it will sometimes get fairly cool in the evenings in Nairobi, during our time in Laikipia, or on the trip up to Koobi Fora, so you will need to bring a sweatshirt/sweater and long pants and/or a knit hat for those occasions. Also, students are requested to wear appropriate clothing while in Nairobi as it is a conservative city. Short skirts, sleeveless shirts, or shorts are not recommended for Nairobi. It is also likely to rain at some point, so bring rain gear (jacket or poncho). Also needed: T-shirts/tank tops, shorts, bandana (for neck), lightweight hiking boots with good tread, a wide-brimmed hat for your head or ears to prevent sunburn (baseball caps and bandanas won't do). The strongest sunblock you can find is recommended. You will also need to bring plenty of underwear and socks. Laundry can be washed in the lake at the Koobi Fora base camp. We supply laundry detergent but you can bring your own if you prefer, as locally purchased detergent tends to be very strong.

### **Optional Items to Bring:**

- (1) Sandals (Tevas or equivalent)
- (2) MP3 player
- (3) One or two paperbacks
- (4) Small pillow
- (5) Field Guide on East African ecology/mammals- see list later in the packet.
- (6) Playing cards, travel games
- (7) Candy, gum, Power Bar-type snacks, packets of powdered drink mix (we have three set meals each day, some students have found that they get hungry between meals and have found these snacks useful if they are used to more frequent meals.
- (8) Clipboard
- (9) Compass (any cheap one will do)

## **Tips on Living in Kenya**

You will be living in a developing country. Although Americans generally find Kenya easier to live in than other developing countries, you will undoubtedly be inconvenienced. In the U.S., we assume that as the sun rises every day, so will water flow through the pipes when we turn on the faucet and the lights turn on when we flip the switch. This is not always the case in Kenya. Be prepared to laugh off shortages of water at the most inopportune times, or rustic conditions when we'd most like to be pampered. Our three mottos are: Patience, Flexibility, and Don't Panic.

In the U.S., whenever we want a particular kind of food or a quick bite to eat, we just make a short run to the grocery store or hamburger stand. You will be living in a place in Kenya where there are no grocery stores or phones nearby. Most of the foods served in the program will be familiar to you, but we will be depending to a great extent on canned vegetables and meats, pasta, rice, and bread. Fresh foods that spoil quickly will be scarce. Fast foods, sweets, soft drinks, and alcohol are not readily available, so stave off those cravings, or bring a supply of candy bars or other kinds of snacks (great for making friends!). There are vegetarian dishes prepared during regular meal times. We will be eating fresh fish (that we catch ourselves) and goat on occasion at Koobi Fora.

One further note: Koobi Fora is located in one of the most isolated areas of the world. Transportation is not easy and is therefore expensive. If you decide you want to leave the field for any (non- health emergency) reason, you will have to cover the expense of travel back to Nairobi (either a \$500 boat/bus trip, if available, or a \$2000 plane charter).

We will make accommodation reservations for all students beginning the day of their arrival so please let us know when you will arrive in Nairobi by giving us your flight information. You should take into consideration that you'll be responsible for paying for accommodations before and/or after the field school if your flight arrives before the first day or after the last day of your session (about \$40/night). The field school will cover lodging beginning the night of June 13th, so you will pay for the night of June 12th or any other night you stay in Nairobi before then. Lodging on the night of July 26th will also be covered by the field school.

The field school accommodation in Nairobi will be in the Parklands area of Nairobi (Possibly the Hennesis Hotel). The KFFS staff already in Kenya will make the reservations for everyone for the nights of June 13th and July 26th; if you are arriving earlier or staying later, one of the KFFS staff can also make a reservation there for you. The phone number at the Hennesis Hotel is 011-254-2-743-969, and you should tell anyone who would want to talk with you on the phone to call you at this number. You can make outgoing calls from this number, but you cannot use a calling card. The cost of international phone calls from Kenya is high, so plan on about \$8 a minute for the first 3 minutes, with a 3 minute minimum. The best option if you need to talk to your parents or friends is to have them call you, or quickly call them and have them call you back.

## Communications

Mail: Once we're at Koobi Fora, it is likely that there will be no mail drops but just in case, you should instruct family/friends to write to you at:

c/o Koobi Fora Field School,  
Archaeology Division,  
National Museums of Kenya,  
P.O. Box 40658,  
Nairobi, Kenya.

Letters and postcards usually take about 7-10 days to go across the Atlantic, but can take much longer. Tell your family/friends not to send care packages (or anything else that would have to clear customs); they end up at the Nairobi Post Office, and it takes a lot of time and money to claim them.

[In an emergency, Fed Ex is reliable; the street address to use (for Fed Ex only) is the same as the above, but instead of P.O. Box 40658, use "Museum Hill Road", and for the phone number use the cell phone number listed below.]

Phone: National Museums 011-254-2-742161 or -742131  
Koobi Fora Field School (c/o Archaeology Division) ext. 217 (This phone is unreliable and very difficult to get through).

Hennesis Hotel 011-254-733-893-038 (mobile)  
011-254-722-502-416 (mobile)  
011-254-023-752-596 (land)  
011-254-023-752-597 (land)  
011-254-023-742-730 (land)

Dr. Purity Kiura +254-722-806-545

There are no telephones at Koobi Fora, but we will have relay radio contact with the National Museum in Nairobi in case messages need to be passed along, and we will have a satellite phone in case of an emergency.

Fax: National Museums 011-254-2-741424  
E-mail: Koobi Fora Field School e-mail account koobiforafieldschool@gmail.com or [Drbraun76@gmail.com](mailto:Drbraun76@gmail.com)

In the event that someone needs to get in touch with you in an emergency and they do not receive a response form either of these accounts send a message to [anth@email.gwu.edu](mailto:anth@email.gwu.edu).

This e-mail will be accessed by staff members from now on, and students can receive messages at this address. Please tell anyone e-mailing you to put your full name in the subject line, so the message goes to the right person.

It is very likely that you will be able to check your own e-mail account once before you leave Nairobi, for a small fee, at a cyber café. However, we cannot promise the phone lines/internet connections will be functional or reliable.

**Checklist:**

Check your passport: make sure it is up-to-date. Obtain one if you don't have one yet. Make a photocopy of the first page and bring it with you in a separate piece of luggage, just in case.

Purchase airline ticket.

Obtain all the immunizations and malaria prevention medication that you need in consultation with your doctor. In particular, your routine vaccinations should be up to date, and vaccinations for Yellow Fever, Hepatitis A and B, and meningitis are recommended.

Email your flight itinerary (arrival in and departure from Nairobi) to [koobiforafieldschool@gmail.com](mailto:koobiforafieldschool@gmail.com) with flight date, time (am/pm), airline, and flight number.

Fill out all required forms on the GW Study Abroad website.

Purchase items that you will be taking with you to Kenya (see lists above).

## **Instructional Material**

The Koobi Fora region has yielded hominid and archaeological traces that span a time range extending from historic times back to those of the remote Plio-Pleistocene. Students on the field school will have opportunity to visit sites which represent changing patterns of hominid behavior throughout the over 3 million years of human prehistory preserved at Koobi Fora. Most importantly, students will receive instruction in survey and excavation using state-of-art methods of mapping, recovery, and recording techniques, within the context of on-going research at Koobi Fora. In addition, during the last two years the field school has been excavating site FwJj 14 east. This site is highly significant and important as it has yielded a partial hominin skeleton, fossil footprints including hominid prints, and modified bone. There will be instructors/researchers to supervise and skilled excavators from the National Museum of Kenya to teach students excavation techniques.

The theme of the field school is to look at the archaeological traces of hominid behavior (sites, isolated artifacts, bone, food refuse, etc.) and their spatial configuration on ancient landscapes (geological context and paleoenvironment and its implications for habitat use) in conjunction with the complementary fossil hominid skeletal remains that bear upon behavior, as a holistic study into broad issues of hominid evolution and adaptation, including implications for foraging and land use.

The course packet contains maps, diagrams, handouts, and other bits of information that we will be using during the course. There are sections on hominids, archaeology, zooarchaeology and taphonomy, geology, ecology, and primates.

As the students accepted into the program come from diverse backgrounds in anthropology, archaeology, paleontology, biology, geology, and ecology, we recommend that you become familiar with the basics of these fields by reading as much as you can from the reading lists and instructional handouts below before you arrive in Kenya. That said, do not worry if you cannot read many or most of these readings before you leave. You can judge for yourself the areas in which you will need the most background information in order to get the most from the course. All of the readings are optional. We bring to the field a traveling library with many of these relevant references, and students do not need to bring any readings to Kenya with them. Do not worry if you cannot find some of these readings, this is a guideline only, and you are not required to have read anything on these lists.

If you have a particular interest in wildlife we recommend you purchase two books, available at local bookstores:

- 1) a guide to Kenya or East Africa (e.g. Lonely Planet, Rough Guide)
- 2) a guide to the East African wildlife – some good choices are listed below but one is sufficient:

Alden et al (1995) The National Audubon Society Field Guide to African Wildlife  
-- Excellent reference including mammals, birds, and a few other creatures as well as photos of nearly every animal you will see in Kenya

Kingdon (1997) The Kingdon Field Guide to African Mammals  
-- This goes more in depth into each species but only covers mammals, and has hand-drawn pictures rather than photographs

Estes (1993) The Safari Companion: A Guide to Watching African Mammals  
-- This is great reference focusing on mammal behavior with drawings

Estes (1991) The Behavior Guide to African Mammals  
-- This is similar to above reference but is more detailed and scientific

Suggested Reading lists:

A. Archaeology/Lithics

Ambrose, S. H. (1998). Chronology of the later Stone Age and food production in East Africa. *Journal of Archaeological Science* 25, 377-392.

Bellomo, R. V. (1994) Methods of determining early hominid behavioral activities associated with the controlled use of fire at FxJj 20 Main, Koobi Fora, Kenya. *Journal of Human Evolution* 27, 173-195.

Bunn H. Harris, J.W. K., Isaac, G., Kaufulu, Z., Kroll, E., Schick, K., Toth, N. and Behrensmeier, A.K. (1980) FxJj 50: an early Pleistocene site in northern Kenya. *World Archaeology* 12 (2), 109-136.

Harris, J. W. K. and S. C. Capaldo (1993) The earliest stone tools. In A. Berthelet and J. Chavaillon, eds., *The Use of Tools by Human and Non-Human Primates*. Oxford: Clarendon Press, pp. 196-220.

Isaac, G. L. (1983) Bones in contention: competing explanations for the juxtaposition of early Pleistocene artifacts and faunal remains. In J. Clutton-Brock and C. Grigson, eds., *Animals and Archaeology, Volume 1: Hunters and their Prey*. Oxford: British Archaeological Reports International Series 163, pp. 3-19.

Isaac, G. L. (1986) Foundation stones: early artifacts as indicators of activities and abilities. In G. N. Bailey and P. Callow, eds., *Stone Age Prehistory*. Cambridge: Cambridge University Press, pp. 221-242.

Keeley, L. H. and Toth, N. (1981) Microwear polishes on early stone tools from Koobi Fora, Kenya. *Nature* 293, 464-465.

Owen, R. B., Barthelme, J. W., Renaut, R. W. and Vincens, A. (1982) Paleolimnology and archaeology of Holocene deposits north-east of Lake Turkana, Kenya. *Nature* 298, 523-529.

Plummer, T. (2004) Flaked Stones and Old Bones: Biological and Cultural Evolution at the Dawn of Technology. *Yearbook of Physical Anthropology* 47, 118-164.

Roche, H., Delagnes, A., Brugal, J.-P., Feibel, C., Kibunjia, M., Mourre, V. and Texier, P.-J. (1999) Early hominid stone tool production and technical skill 2.34 Myr ago in West Turkana, Kenya. *Nature* 399, 57-60.

Rogers, M. J., Feibel, C. S., and Harris, J. W. K (1994) Changing patterns of land use by Plio- Pleistocene hominids in the Lake Turkana Basin. *Journal of Human Evolution* 27, 139-158