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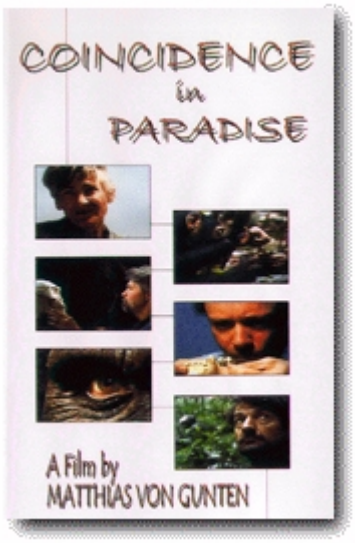
COINCIDENCE IN PARADISE

Reviewed by Robert B. MacNaughton

Matthias von Gunten
First Run/Icarus Films, 2000, 88 minutes.

In the closing paragraphs of *On the Origin of Species,* Charles Darwin predicted that, in the light of natural selection, "Light will be thrown on the origin of man and his history." *Coincidence in Paradise* is a worthy, though somewhat flawed, attempt to shine that light on two big questions of human existence: Where did we come from, and, Why are we here at all? In reply to these questions we are treated to interview segments with noteworthy figures in the study of human origins and, happily, much of the film footage follows these people as they conduct their research in the lab and in the field. As a result, the researchers are able to provide compelling running commentary on their their ideas and their work. The speakers are eloquent, their enthusiasm is infectious, and they give the film a definite first-person warmth. This remains a strength of the movie, even in segments where the main thread of the film-makers' argument is difficult to follow. The movie is presented in English and German (with English subtitles).

Each of the big questions defines one half of the film. The film's first half is the stronger of the two and takes as its theme the shared ancestry of humans and apes. Palaeontologist Meave Leakey and Kamoya Kimeu, a fossil-hunter who has worked for the Leakeys since the 1950s, together do an excellent job of communicating the excitement of scientific research. The joy and satisfaction that Kimeu finds in his work are particulary inspiring. Indeed, his comments about fossil hunting are, by themselves, sufficient reason to watch this film. Interspersed with footage of Leakey and Kimeu hunting fossils are several segments featuring the enthusiastic and well-spoken Tim White (UC Berkeley). White gives an admirable summary of the factors that need to be in place to find a fossil and eloquently illustrates the wealth of data to be gleaned from functional morphology and comparative anatomy. Of course, between Leakey and White, we are also introduced to a number of notable fossils, including *Ardipithecus ramidus,* currently the earliest known hominid, and we are treated to discussions of how fossils provide a window into long-vanished



worlds. (Unfortunately, the narration contains a couple of jarring errors dealing with earlier fossil homind finds. These seem so obviously incorrect – discovery of the first fossil hominid is apparently attributed to Louis Leakey, for example – that I suspect they are due to inaccuracies in the translation from German narration to English subtitles.)

Happily, for all its enthusiasm for the fossil record, the documentary does not neglect modern primatology. Some of the movie's most compelling material comes from the work of Swiss biologist Christophe Boesch, who has studied chimpanzees in the wild for nearly two decades. Boesch's thesis is that there is no clear dividing line between the behaviours of humans and of chimps, and he states his case very effectively. Film footage of chimpanzees using logs to crack nuts, shaping twigs to nonchalently dig out nut meats, and hunting and tearing a monkey limb-from-limb serves to illustrate his point. (If you doubt me on the latter point, watch the hunting footage back-to-back with film of the Seattle Mardi Gras riots. I find the similarity chilling.) By the mid-point of the movie, viewers have been introduced to several lines of evidence for the common ancestry of humans and apes. The film presents the case well, even elegantly, although the narrator's assertion that "hardly anyone has any further doubts about our descent from ape-like creatures" will seem sadly ironic in parts of North America.

After a very strong opening, the film falters in an overlong second half. "Why did humans arise at all?" asks the film, and the answer given is, apparently, a combination of environment, bipedalism, and luck. The second half of the film draws heavily on the work of Elisabeth Vrba, who contends that humans evolved in well-watered deltaic areas that were isolated from each other by arid regions. A great deal in Vrba's model depends on her interpretation of the ancient environment, and we are told that she has carried out "geological studies" that support her model. Unfortunately, we learn far too little about these geological data. Nevertheless, Vrba's model is a compelling one, in which the separation of the deltas provided the genetic isolation needed for new species to evolve. Since deltas contain many subenvironments, each with distinctive food sources, the ability to move readily between subenvironments and exploit the food supplies in each would have yielded a competitive advantage. This is a reasonable idea. Unfortunately, the case for bipedalism providing a competitive advantage in this setting is not presented clearly: it took me a couple of watchings to piece together what (I think) the film-makers were trying to say. It is reasonably well established that bipedalism was an important part of early hominid evolution, but the film-makers seem to conflate the ability of bipeds to fashion weapons and develop manual dexterity with what (in Vrba's model, at least) may be a more fundamental question of competitive advantage in exploiting variant food sources and surviving in open country. The ideas are important, but the film does not do them full justice.

Neither does the film do justice to the philosophical issues that creep in near the end. The speakers seldom draw a clear distinction between scientific conclusions and philosophical opinions (although Boesch struck me as a notable exception) and a couple of references to metaphors from the Jewish and Christian traditions are simplistic and ill-considered. The movie ends on a surprisingly flat note, telling viewers that Darwin found no comfort in his discoveries. As a result, the closing footage of Meave Leakey and Kamoya

Kimeu discovering a 4,000 year-old skull and carrying it off in somebody's hat seems bleak and nihilistic. This is deeply ironic in light of the excitement and joy that the two so obviously find in their work of looking into the vanished past. Even if human evolution is the product of chance alone, there is still grandeur in Darwin's view of life. Unfortunately, the grandeur has eluded whoever put together the movie's ending.

In the end, Coincidence in Paradise succeeds admirably in its exploration of the evolutionary roots of humans, but is less successful (though still thought-provoking) when it turns to the question of why humans evolved. Notwithstanding any problems with its second half, the film is well worth viewing and would be an excellent resource for graduate seminars and upper-year undergraduate courses in anthropology and palaeontology. It is well edited, the photography is very good, and the sound quality is excellent. The background music by Alexander Kirschner deserves special praise for accenting the film without ever being obtrusive. Although Coincidence in Paradise would probably benefit from being shorter (and from tighter presentation of arguments), in this music-video age I admire film-makers who take their time to tell a story. For those seeking a thoughtful, meditative treatment of human evolution, this film will serve very well.
