

Athikele 18571

Karolo: Athikele ya Patlisiso

Dipholo tsa *Australopithecus africanus* tsa lenathwana la enamele ya meno le netefatsa kgonego ya gore go ka tswa go na le mafelo a a nang le masaledi a diporoteine tsa bogologolo mo maropeng a motlha wa ga Plio-Pleistocene wa Aforika Borwa

Tshobokanyo

Rekoto ya dinaga tse di kafa borwa jwa Aforika ya Motlha wa Morago wa ga Pliocene go fitlha ka Motlhwa wa Pele wa ga Pleistocene ya ditshwene-seka-batho e tletse e bile e bontsha lenaanethalo le le nang le bontsi jwa dilo tsa methalethale, tse di emelang masika a mararo: *Australopithecus*, *Paranthropus* le *Homo*. Masaledi a ditshwene-seka-batho a a farologanang ka mefuta le ka mekgwa gantsi a bapisiwa le masaledi a mangwe a a kokoantsweng kgotsa le a mangwe a segompieno/a bogologolo tala. Le fa go ntse jalo, go sa felelang ga rekoto ya masaledi, go tlhophiwa ga disampole ka go di kgetholola le disampole tsa boemo jwa setshedi go dira gore go se nne le tlhaloso ya go farologana ga tsone ka mefuta le ka mekgwa fa gare ga disampole tseno. Ka jalo, gangwe le gape go ngangisanwa ka mokgwa wa go tlhaola mefuta ya ditshedi le pharologano ya tsone ka mekgwa, e leng pharologano e e etsweng tlhoko. Diporoteine tsa bogologolo tse di fitlhelwang mo maropeng di ka thusa go tokafatsa tsela ya rona ya go tlhaloganya lenaanethalo la rona la dipharologano ka mefuta, jaaka fa seno se ile sa bontshiwa ke tlhagiso ya bosheng ya diporoteine tsotlhe tsa disampole tsa *Paranthropus* go tswa kwa Swartkrans. Se re se dirang fano ke go bontsha tsela ya go sireletsa poroteine ya sampole ya *A. africanus* go tswa kwa Sterkfontein Member 4, Sts 63, ka tshekatsheko e e dirwang ntle le go sega le go bula setshedi, le go se tlhaola jaaka se se welang mo setlhopheng sa tse di tonanyana. Morago ga moo re tlotla ka dithibelo dingwe tse re nang le tsone ga jaanong jaana tsa diporoteine tsa bogologolo tse di fitlhelwang mo maropeng le gore re ka kgona go fenywa dithibelo tseo jang. Le fa e sa ntse e ise e nne nako ya masaledi a diporoteine tsa bogologolo mo maropeng a motlha wa ga Plio-Pleistocene, go na le kgonego ya gore diporoteine tsa bogologolo tse di fitlhelwang mo maropeng di ka thusa go rarolola mathata a a etsweng tlhoko a a bakilweng ke dipharologano tsa popego ya setshedi. Kwa bofelong, re dumela fela thata gore go nna le seabe ga babatlisisi ba Aforika ba maemo otlhe a patlisiso eno, go akaretsa le baeteledipele, go botlhokwa fela thata.

Botlhokwa jwa tshobokanyo eno:

Re kgonne ka katlego go tlhotlhomisa bong jwa sampole ya *Australopithecus africanus* (Sts 63) go tswa kwa Sterkfontein Member 4 ka dipharologano tsa dingwaga tsa bogolo jwa 3.5 go fitlha go jwa 2.01 Ma, ka tsholofelo e e kwa godimo le go tlhatlhoba gore poroteine e bolokilwe go ya bokgakaleng jo bo kana kang. Dithibololo tseno di na le diphelelo tse di botlhokwa thata mo tseleng ya rona ya go tlhaloganya dipharologano tsa ditebego le dipharologano ka mefuta jaaka fa mefuta eo e etswe tlhoko mo ditshweneng-seka-batho tsa Aforika tsa motlha wa ga Plio-Pleistocene.

Mafoko a konokono: Sterkfontein, go tlhaola bong, *Paranthropus*, ditshwene-seka-batho