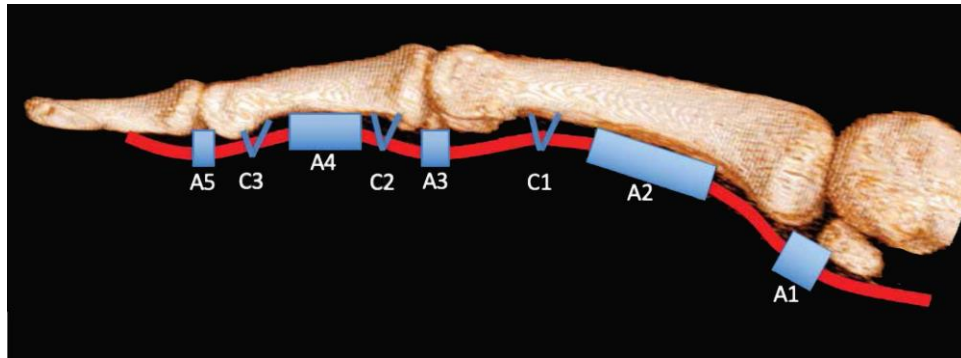
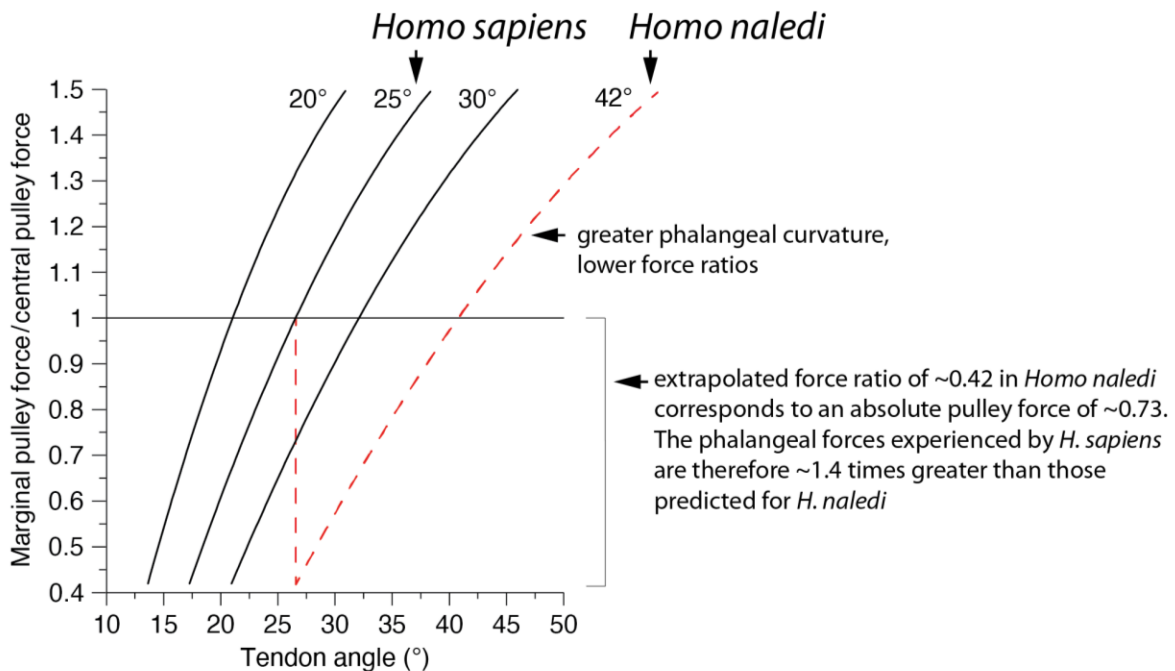


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**Supplementary figure 1:** Pulley system of the finger flexor tendons, illustrating the positions of five annular ligaments (A1–A5) and three cruciate ligaments (C1–C3). Ruptures of A2 and A4 are common injuries suffered by human rock climbers. Image modified from Schöffl et al.<sup>1</sup> with permission.



**Supplementary figure 2:** Variation in the force ratio of marginal and central pulley fibers as a function of the tendon angle that results from varying degrees of phalangeal curvature, as measured by the included angle ( $\theta$ ). Figure concept and extrapolations are based on the model of Tan et al.<sup>2</sup> Data sources for  $\theta$ : Stern et al.<sup>3</sup> (*Homo sapiens*) and this study (*H. naledi*).

**Supplementary table 1:** Lengths (mm) of the intermediate phalanx (IP) and distal phalanx (DP) of manual digits 2–5 in a skeletal sample of chacma baboons (*Papio ursinus*) at the Evolutionary Studies Institute (ESI) and School of Anatomical Sciences (WSAS), University of the Witwatersrand

Collection	Catalogue no.	IP 2	IP 3	IP 4	IP 5	DP 2	DP 3	DP 4	DP 5
ESI	None	15.4	12.3	12.6	11.5	10.5	9.9	12.0	8.4
WSAS	ZA87	15.8	14.2	18.7	13.5	13.6	12.7	10.1	10.5
WSAS	ZA112	14.4	16.8	17.3	13.7	14.3	13.0	12.4	10.8
WSAS	ZA115	14.4	13.6	13.6	12.4	9.7	10.1	9.7	9.3
WSAS	ZA117	24.4	13.3	13.8	11.0	11.5	10.3	10.2	10.2
WSAS	ZA164	16.6	14.1	15.8	13.6	12.2	9.7	10.3	10.9
WSAS	ZA669	11.3	12.2	10.0	6.9	11.1	9.4	8.8	7.4
WSAS	ZA675	9.6	7.8	9.6	7.9	6.8	6.2	6.3	4.9
WSAS	ZA737	12.6	13.7	14.3	11.8	10.9	10.8	10.4	10.3
WSAS	ZA832	13.7	13.4	14.5	13.6	12.4	10.1	10.7	10.7
WSAS	ZA848	17.1	16.4	14.2	13.2	13.5	13.8	13.1	11.0
WSAS	ZA851	11.3	13.8	11.6	11.4	10.9	10.1	10.1	8.9
WSAS	ZA891	11.3	13.7	13.3	11.6	10.1	10.5	8.8	9.4
WSAS	ZA1456	14.9	13.9	12.0	11.4	9.1	10.7	10.1	10.2
WSAS	ZA1461	16.1	15.8	16.1	12.7	9.5	10.7	10.6	11.5
WSAS	ZA1463	16.5	14.4	12.9	13.1	10.3	11.5	9.9	9.3
WSAS	ZA1470	19.6	19.7	15.2	14.3	12.4	12.4	12.4	11.0
WSAS	ZA1473	16.6	13.4	13.1	12.1	10.9	9.3	10.4	9.00
WSAS	ZA1476	16.1	14.0	12.4	12.3	10.1	10.1	10.3	9.7
WSAS	ZA1498	15.9	14.3	12.9	11.8	9.7	9.2	9.4	9.7

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