

Einführung in die Humanökologie

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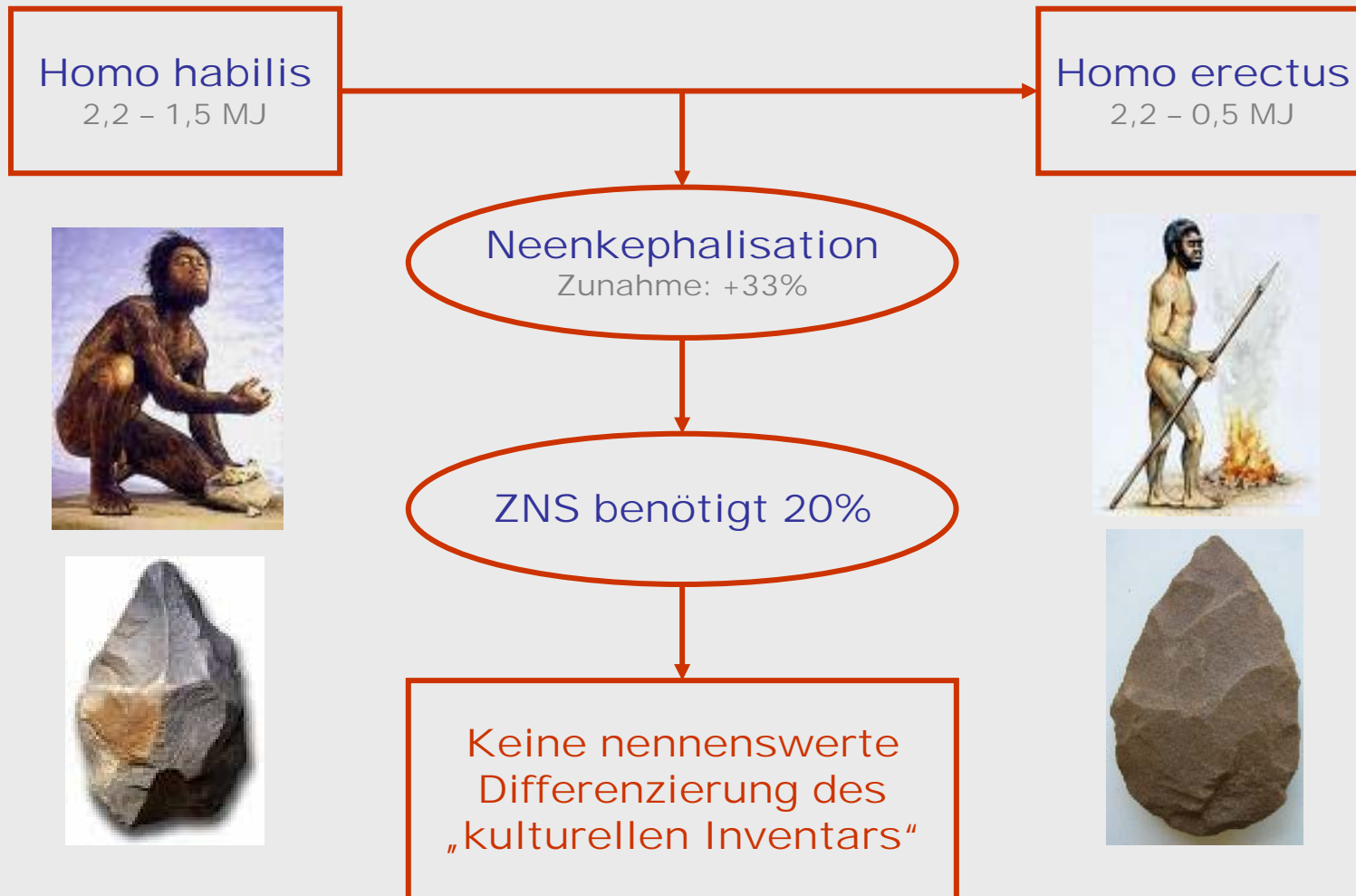
VO 2 SSW – 3 ECTS

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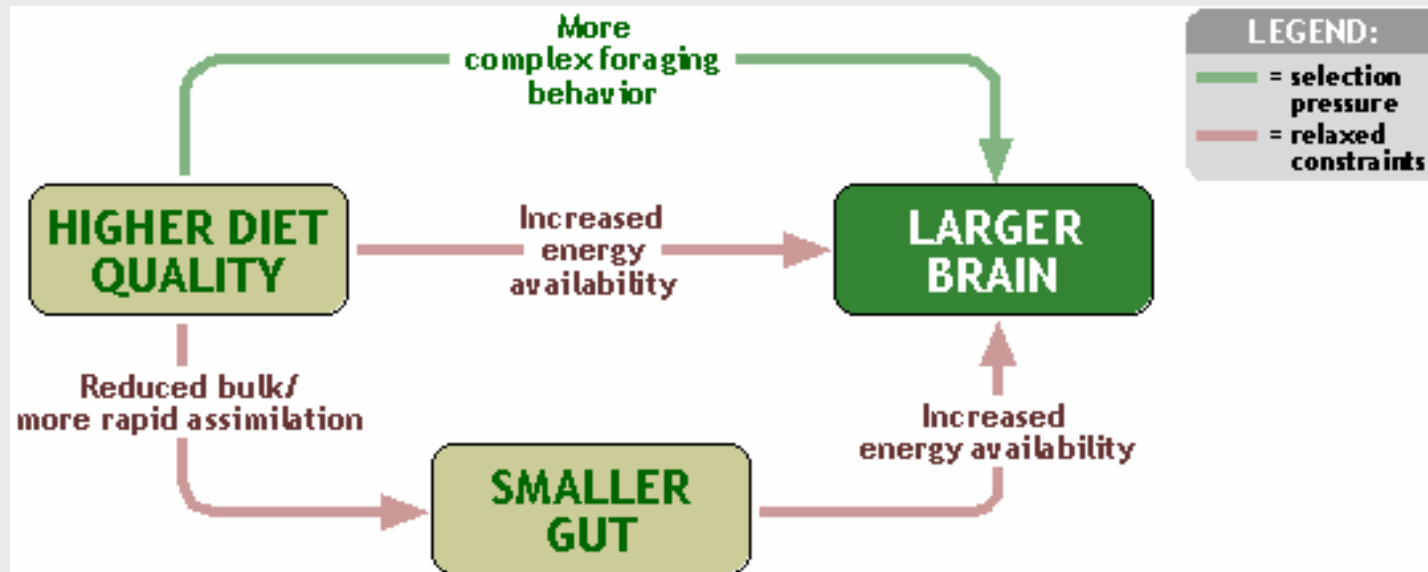
Evolutionsoökologische Modelle:

- Paarbindungsmodell (Lovejoy, 1981)
 - Jäger-Modell (Lee & DeVore, 1968)
 - Nahrungsteilungs-Modell (Isaac, 1978)
 - Sammler(Innen)-Modell (Zihlman & Tanner, 1978)
 - Ernährungsstrategie-Modell (Hill, 1982)
- *Hetzjäger-Modell* (Fialkowski, 1990)
 - *Aasfresser-Modell* (Blumenschine & Cavallo, 1992)
 - *Evolution der Sprache* (Dunbar, 1992)
- Nischen-Divergenzmodell (Henke & Rothe, 1994)

Hetzjäger-Modell (Fialkowski, 1990)

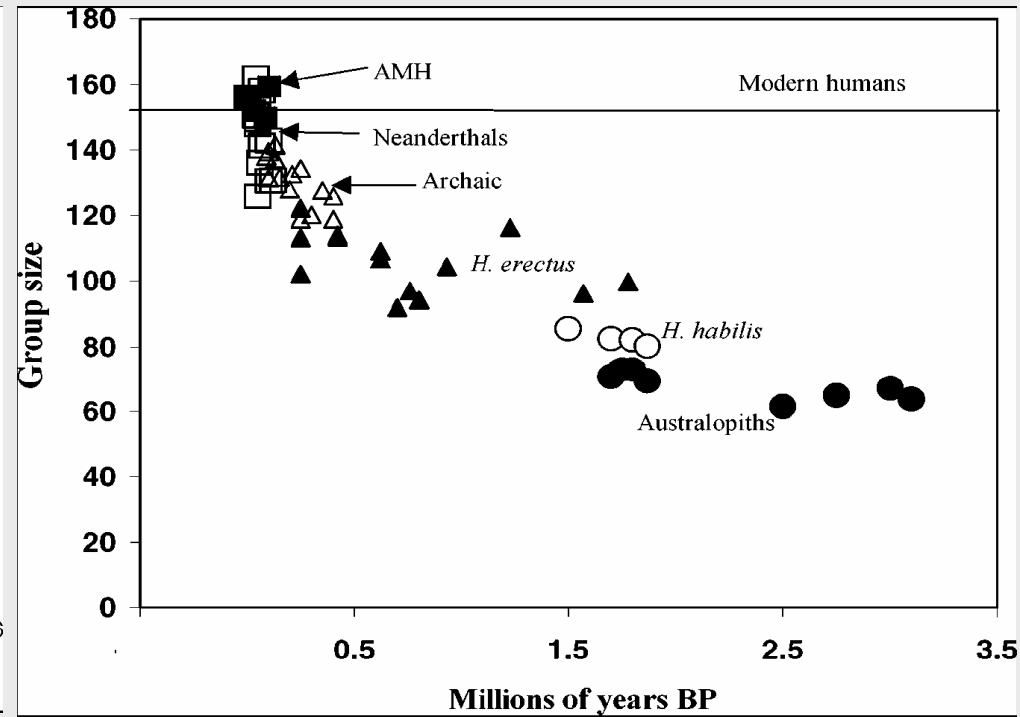
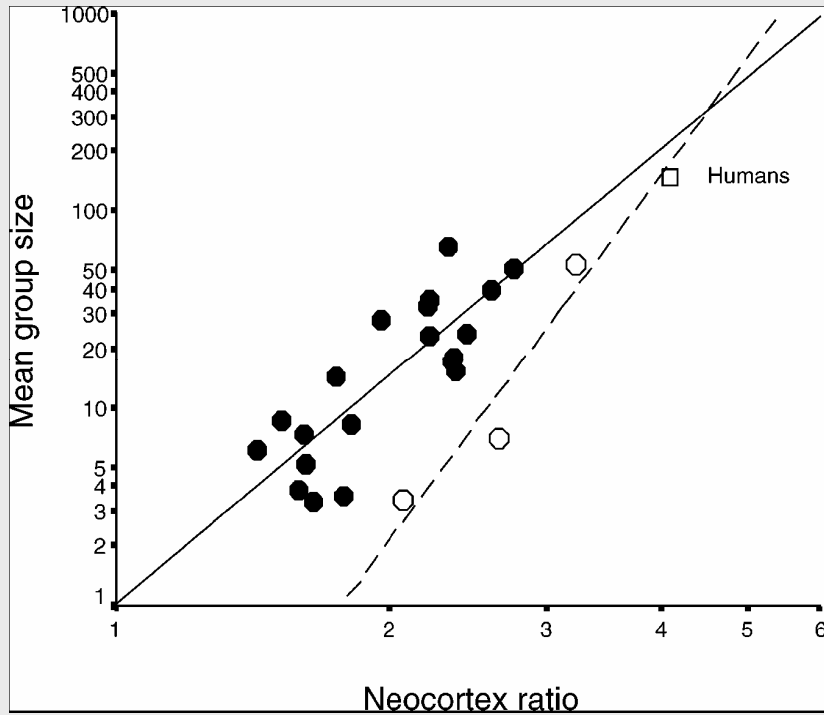


Aasfresser-Modell *(Blumenschine & Cavallo, 1992)*

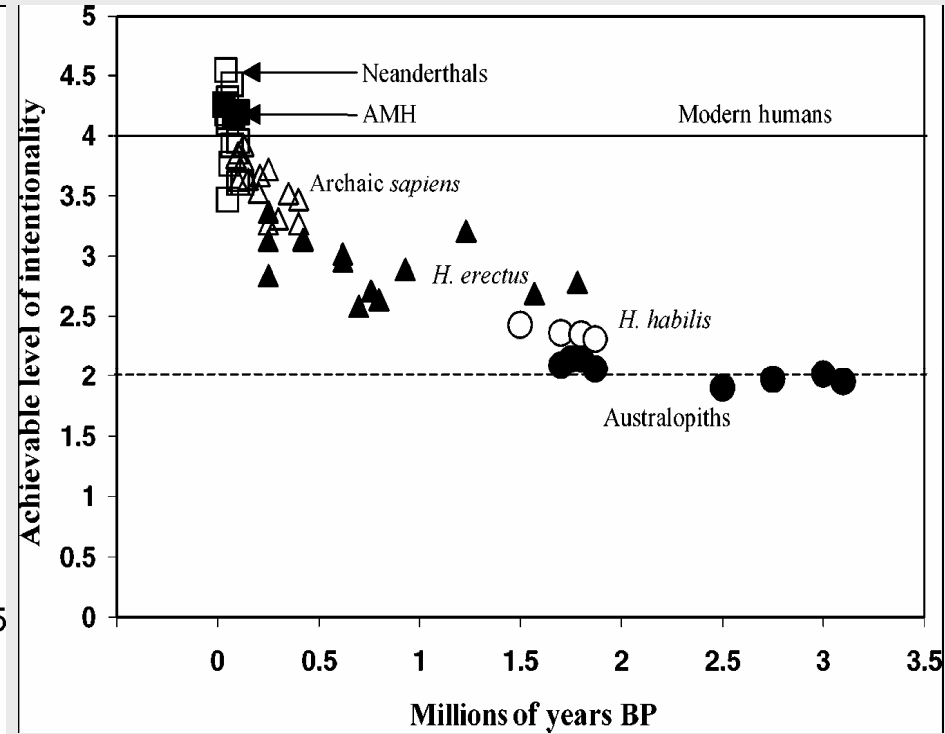
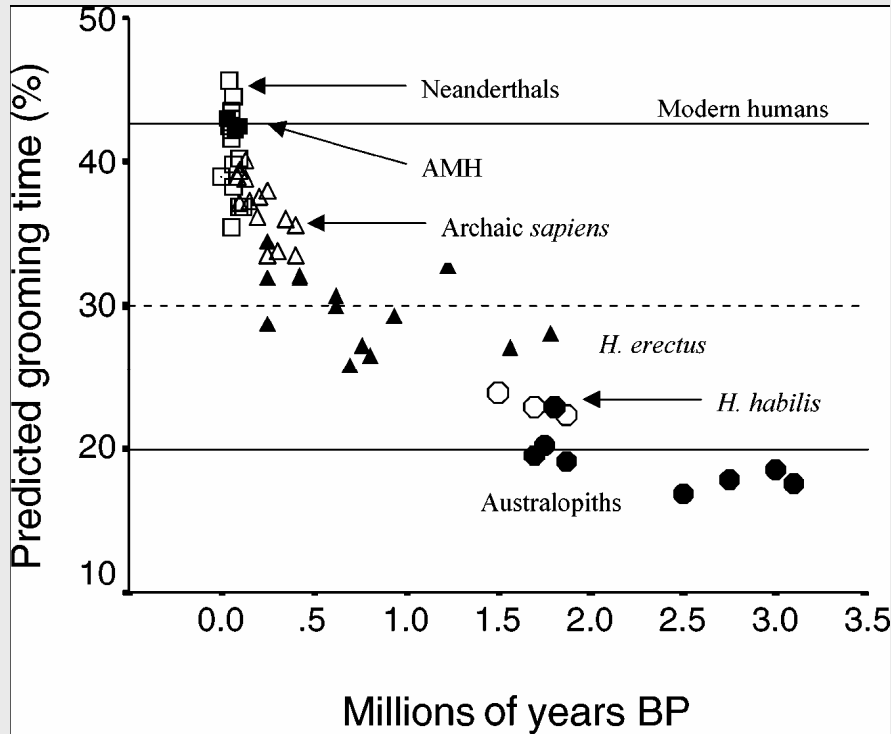


Facsimile of Fig. 5, p. 207, Aiello and Wheeler [1995]. Copyright 1995 by the Wenner-Gren Foundation for Anthropological Research, administered by University of Chicago Press. All rights reserved. Reprinted from CURRENT ANTHROPOLOGY on www.beyondveg.com by permission. Figure may not be reproduced without the prior written permission of the original copyright holder(s).

Evolution der Sprache (*Dunbar, 1992*)



Evolution der Sprache (Dunbar, 1992)

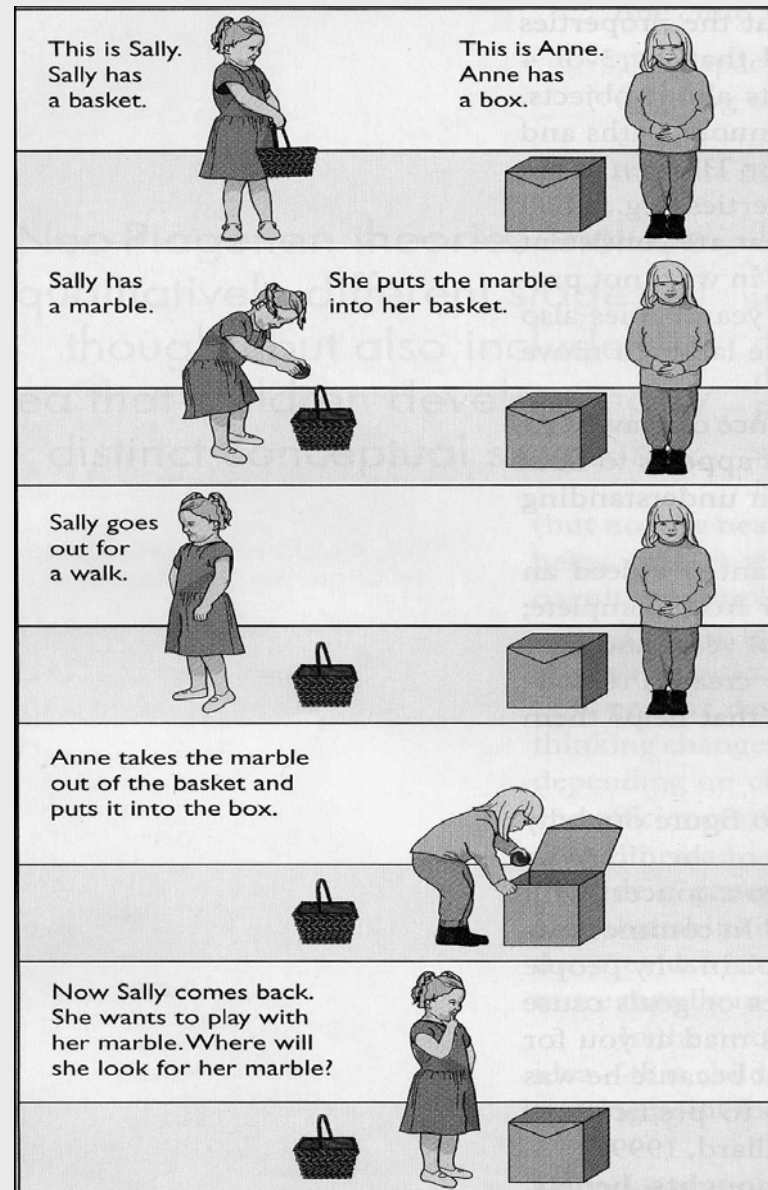


Theory of Mind (ToM):

Fähigkeit, mentale Zustände anderer (Überzeugungen, Wünsche, Absichten etc.) zu verinnerlichen und anzuerkennen, dass sie sich von den eigenen unterscheiden können

Evolutionenbiologische Voraussetzungen für

Kulturfähigkeit



(Wimmer & Perner, 1983)

Subsistence Modes - 1

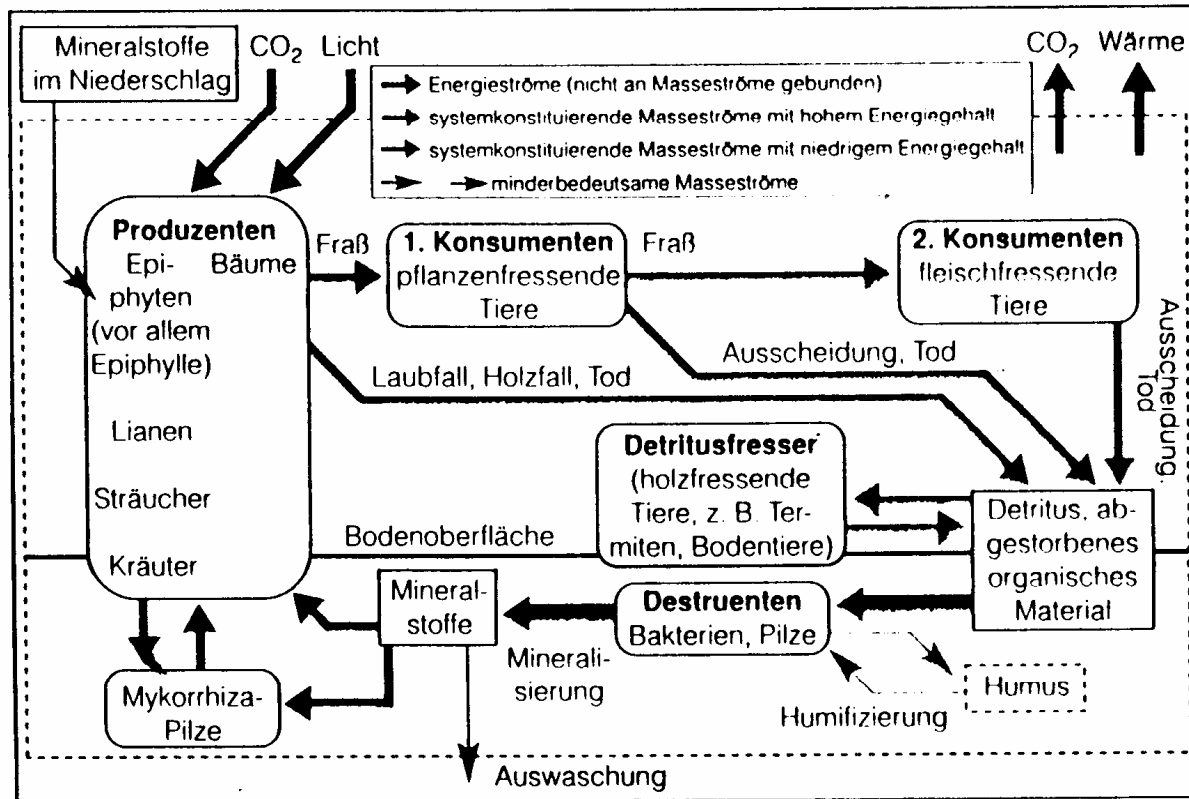
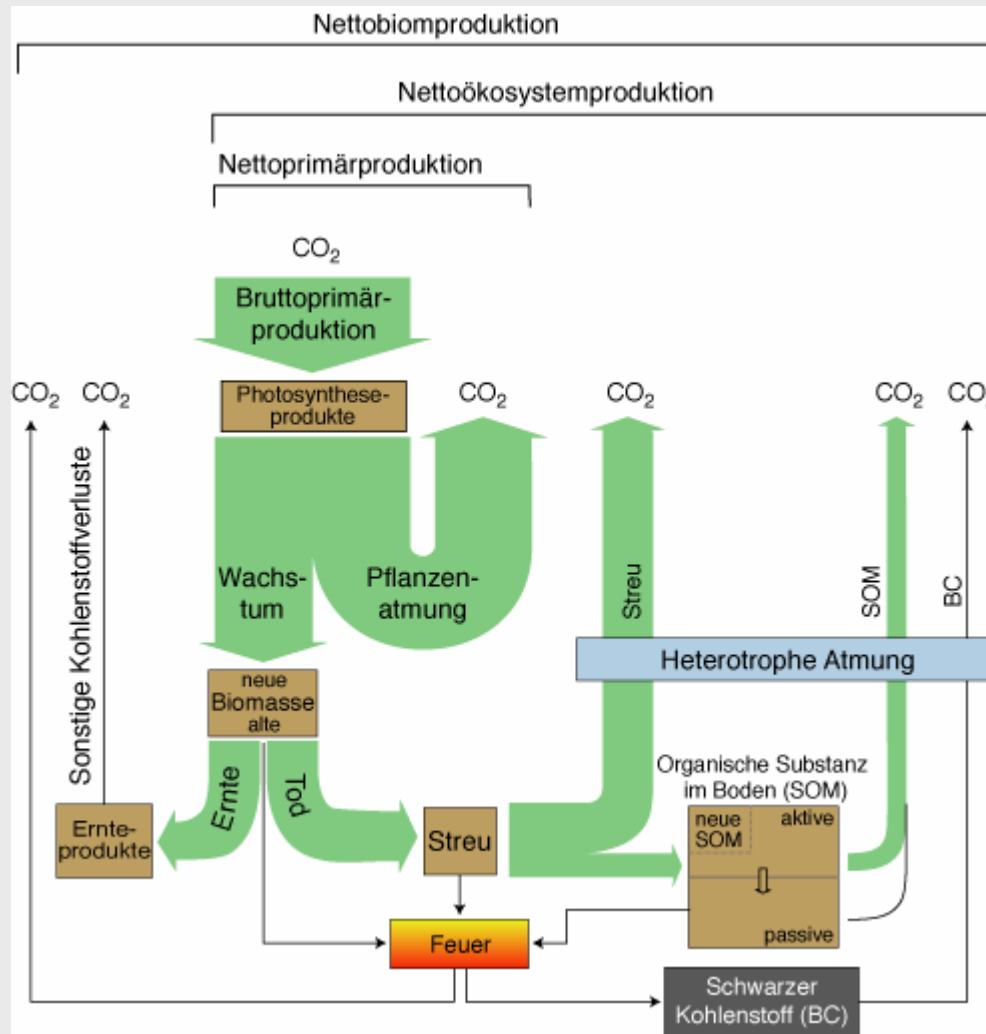


Abb. 1: Stoffkreislauf im tropischen Regenwald (nach Eschenhagen/Kattmann/Rodi 1990)

Subsistence Modes - 2



Subsistence Modes - 3

Correlations between human ecosystem interference and mode of subsistence:

State of the ecosystem	Extent of manipulation	Type of resource	Modes of production
Pristine	Little	Not domesticated	Hunter/gatherer/fisher
Partly modified	Regular	Partially domesticated	Horticulture, Slash and-burn agriculture, Basic animal husbandry
Largely artificial	Only stable by human intervention	Almost entirely domesticated	Agriculture, Pastoralism, Industrialism

Hunter gatherer – Jäger & Sammler

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Water availability	Rainy season (summer)			Dry season (autumn, winter)				Dry season (autumn)		Rainy season (summer)		
	Temporary water holes			Permanent water holes		Few water holes				Many water holes		
Relative mobility	Distance between water and food minimal						Increasing		Maximal		Minimal	
	High dispersion			Concentration			Maximal concentration			Beginning of dispersion		
Hunting	Hunting with bow and arrow											
	Chase hunting				Trap hunting on small game				Chase hunting			
Gathering	Collecting mongongo fruits/nuts											
	Fruits, berries, nuts					Roots, tubers, resins				Roots, leaves		

Fig. 2.1. Seasonal cycle of subsistence activities for !Kung, Kalahari Desert, Botswana. The availability of water is crucial to patterns of spatial dispersal, group size and composition (modified from Lee 1968)

Hunter gatherer – Jäger & Sammler

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Activity	Sled hunting									Sled hunting		
	Trap hunting									Trap hunting		
						Whaling						
						Fishing			Tent camps			
Prey	Seals											
	Walrus						Fish			Walrus		
	Caribou			Caribou					Caribou			
	Bear			Bear			Rabbit			Rabbit		Bear
	Fox							Wolf			Wolf, Fox	
					Birds, eggs							
Environment	Ice increasing			Ice at maximum				Ice increasing				
	Longer dark phases				Light phase			Longer dark phases				

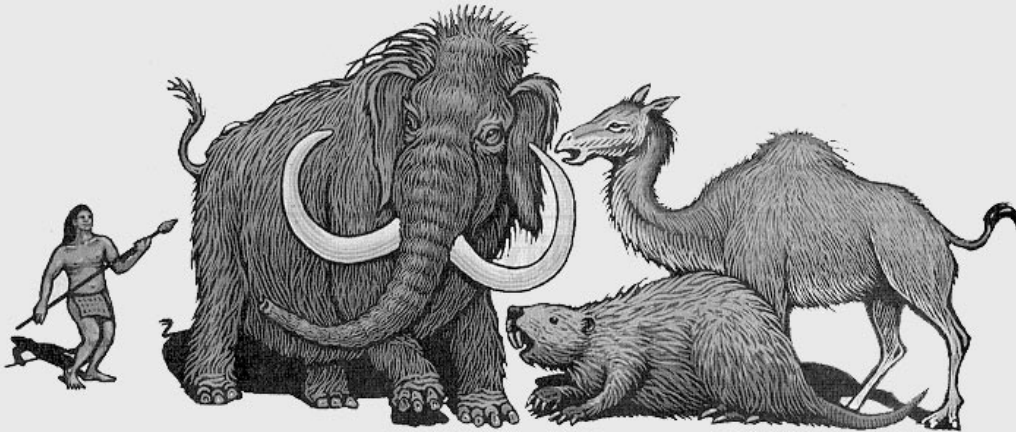
Fig. 2.2. Seasonal cycle of subsistence activities for Igloolik, Melville Peninsula, Canada. Hunting and settlement activities follow the abundance of major prey species (after Godin 1972)

Hunter gatherer – Jäger & Sammler

Table 3.1. Environmental differences and consequences for technology and lifestyle for the transition from colder to warmer climates

Factor	Stadial	Interstadial
Landscape	Open, few trees, steppe-like	Closed, increasing forestation
Fauna	Herds of large mammals	Smaller species
Flora	Grasses, mosses, lichens, berries	Trees, shrubs, nuts, berries, seeds
Technology	Adjusted to large game hunting	Trend towards reduction in size, composite tools
Hunting strategy	Adjusted to larger groups	Adjusted to smaller groups
Settlement structure	Large camps	Small camps

Jäger & Sammler – „Great Extinction“

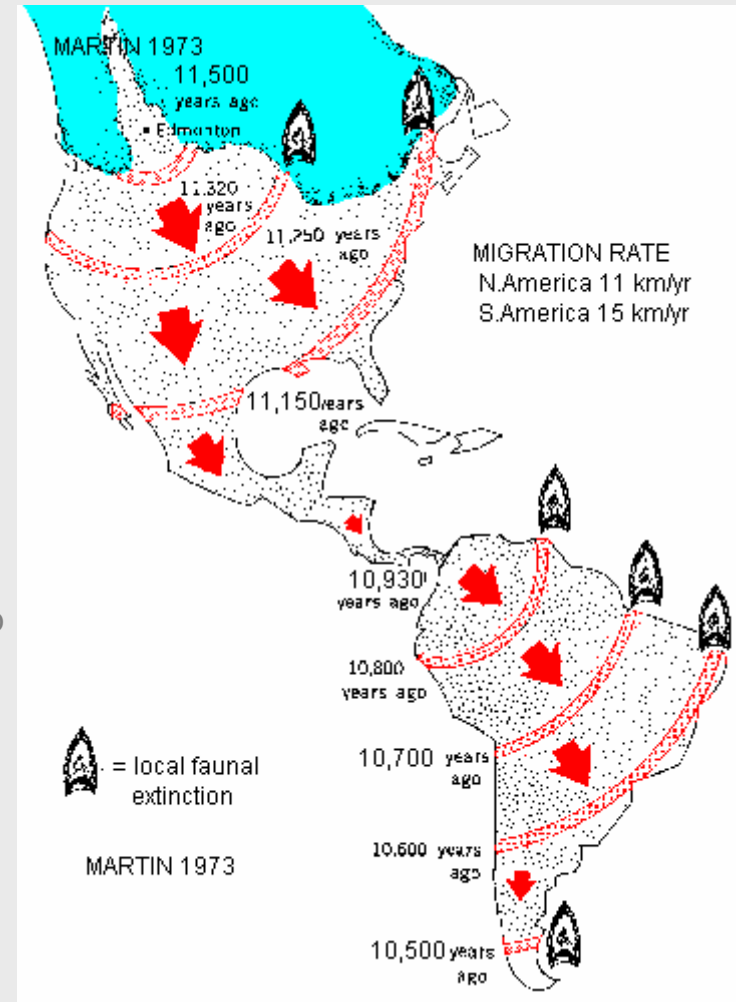


North America:

vertebrate diversity peaked ~ 50-20,000 years ago

15 – 9,000 years ago: massive extinction of megafauna

what happened: **human arrival**



Jäger & Sammler – „Great Extinction“

