



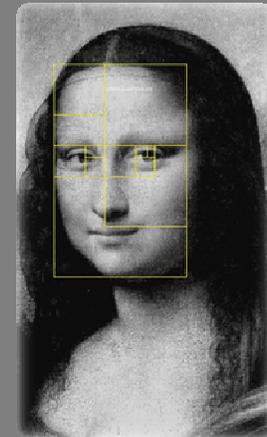
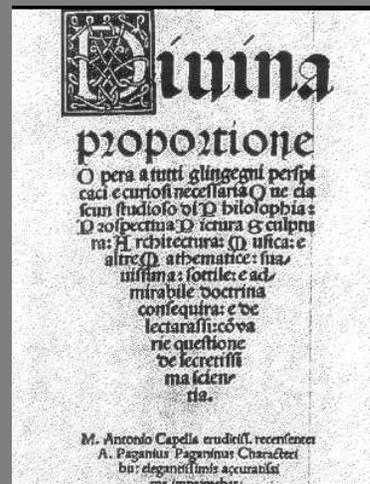
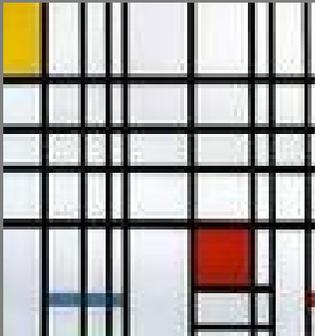
# Antični dnevi

Bernarda Podlipnik, Gregor Pavlič

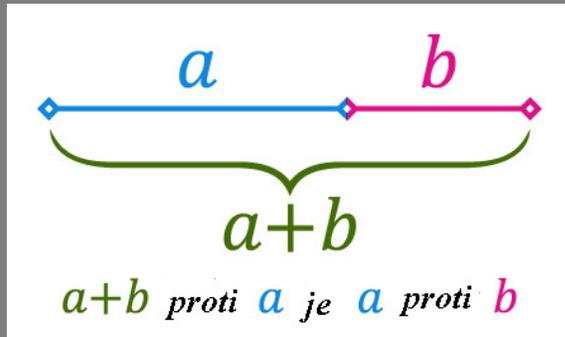
1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, ...



# *Sectio divina*



# Zlati rez



$$\frac{a+b}{a} = \frac{a}{b}$$

$$\frac{\frac{a+b}{b}}{\frac{a}{b}} = \frac{a}{b}$$

$$\frac{a}{b} = \varphi$$

$$\frac{\varphi+1}{\varphi} = \varphi$$

$$1 + \frac{1}{\varphi} = \varphi$$

$$\varphi = 1 + \frac{1}{\varphi} = 1 + \frac{1}{1 + \frac{1}{\varphi}} = 1 + \frac{1}{1 + \frac{1}{1 + \frac{1}{\varphi}}} = 1 + \frac{1}{1 + \frac{1}{1 + \frac{1}{1 + \frac{1}{\varphi}}}} =$$



$$\varphi = 1 + \frac{1}{1 + \frac{1}{1 + \frac{1}{1 + \frac{1}{1 + \frac{2}{3}}}}}$$

$$\varphi = 1 + \frac{1}{1 + \frac{1}{1 + \frac{1}{1 + \frac{1}{1 + \frac{3}{5}}}}}$$

$$\varphi = 1 + \frac{1}{1 + \frac{1}{1 + \frac{1}{1 + \frac{5}{8}}}}$$

$$\varphi = 1 + \frac{1}{1 + \frac{1}{1 + \frac{8}{13}}}$$

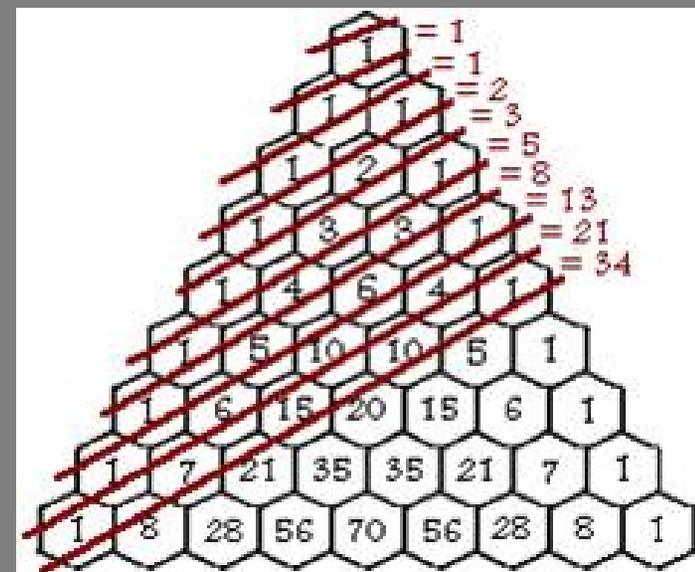
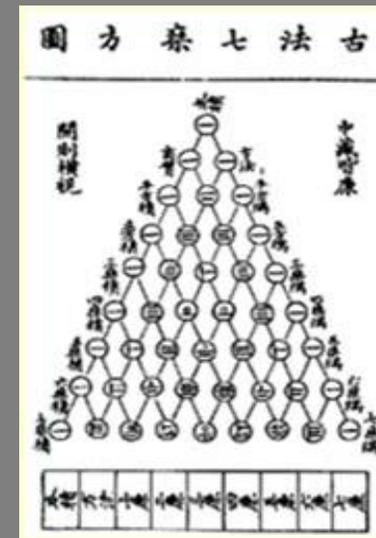
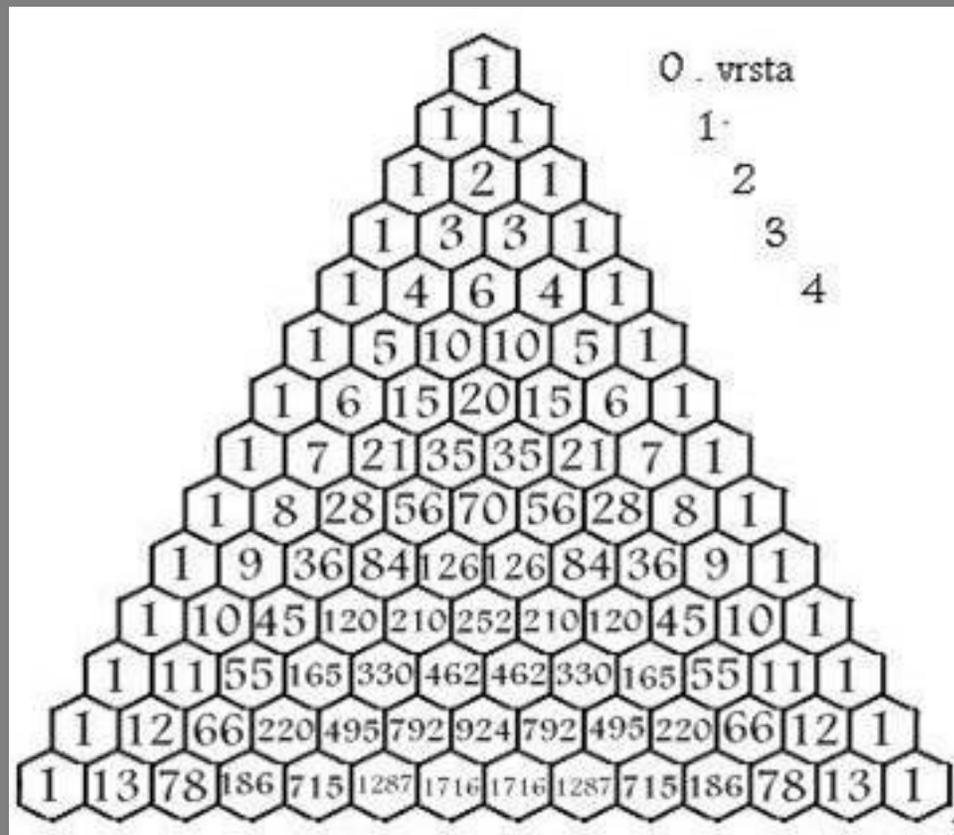
$$\varphi = 1 + \frac{1}{1 + \frac{13}{21}}$$

$$\varphi = 1 + \frac{21}{34} = \frac{55}{34} \doteq 1.617647059\dots$$

$$\frac{2}{1}, \frac{3}{2}, \frac{5}{3}, \frac{8}{5}, \frac{13}{8}, \frac{21}{13}, \frac{34}{21}, \frac{55}{34}, \dots \rightarrow \varphi$$



# Pascalov trikotnik

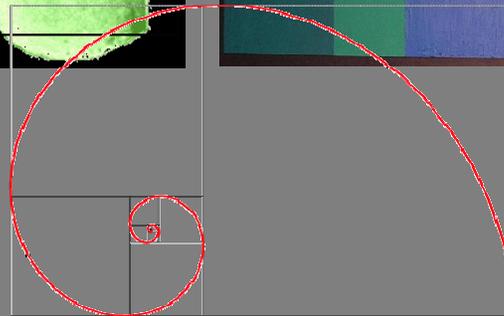
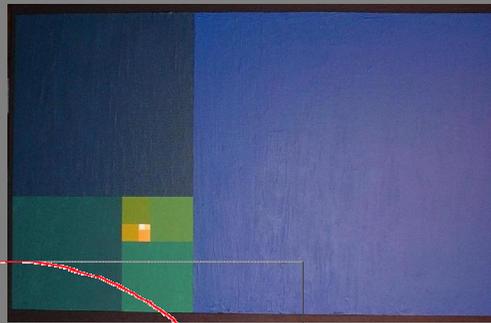
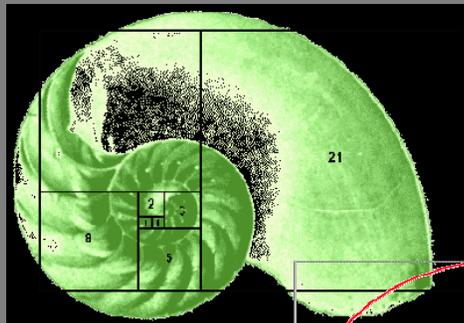


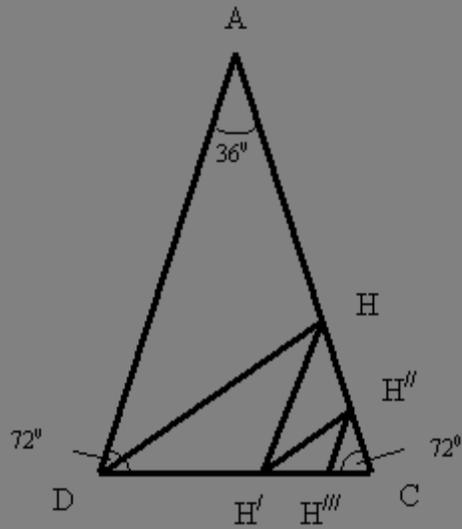
# Fibonaccijevo zaporedje

1, 1, 2, 3, 5, 8, 13, 21, 34, 55, ...

$$F_1 = 1, F_2 = 1, F_{n+2} = F_{n+1} + F_n$$

$$\frac{F_n}{F_{n+1}} \rightarrow \varphi; \quad n \rightarrow \infty$$





for Fibonacci numbers  $F$

$$F_i = \frac{\varphi^i - \phi^i}{\sqrt{5}}$$

, where  $\phi = \frac{1 - \sqrt{5}}{2}$

$$\varphi^n = F_n \varphi + F_{n-1}$$

$$\varphi^2 = 1 + \varphi$$

$$\varphi = \frac{1 + \sqrt{5}}{2}$$

$$\varphi^n = \varphi^{n-1} + \varphi^{n-2}$$

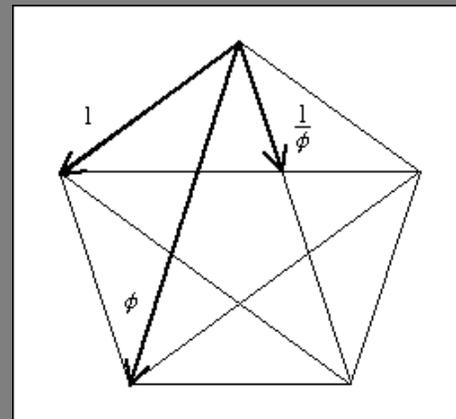
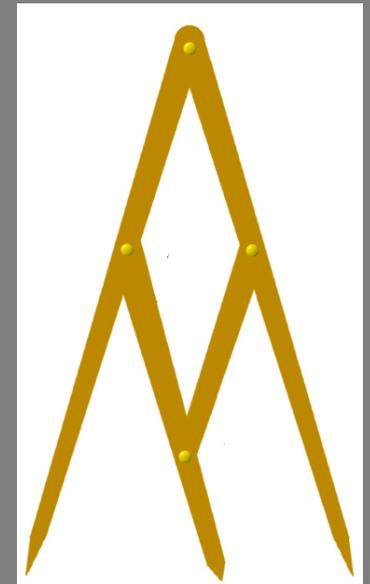
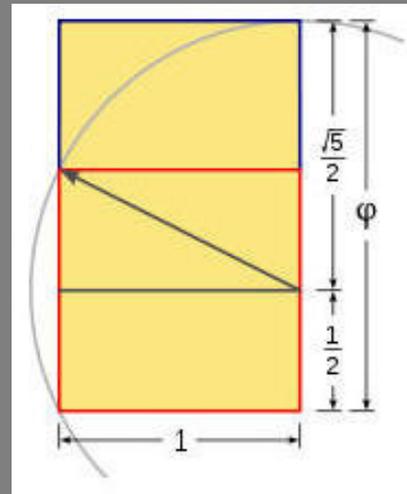
$$\varphi = 1 + \frac{1}{\varphi}, \quad \phi = 1 + \frac{1}{\phi}$$

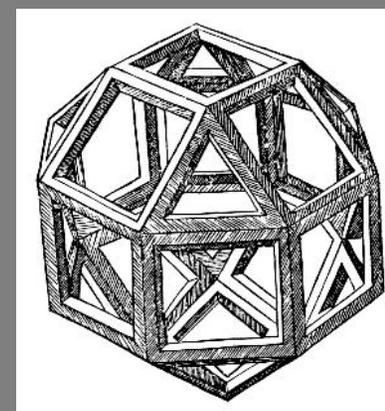
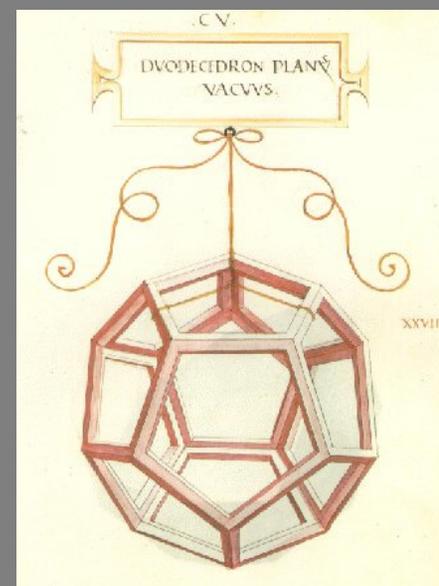
$$\varphi = 1 + \frac{1}{1 + \frac{1}{\varphi}} \Rightarrow \varphi = 1 + \frac{1}{1 + \frac{1}{\varphi}}$$

$$\varphi \approx 1.618$$

$$\varphi = \sqrt{1 + \sqrt{1 + \sqrt{1 + \sqrt{1 + \dots}}}}$$

$$\sin\left(\frac{\pi}{2} - i \ln \varphi\right) = \frac{\sqrt{5}}{2}$$

$$\sin(i \ln \varphi) = \frac{i}{2}$$


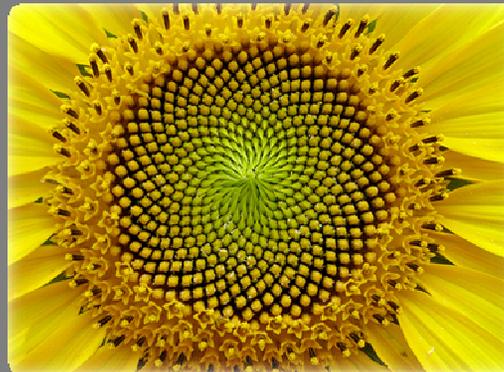
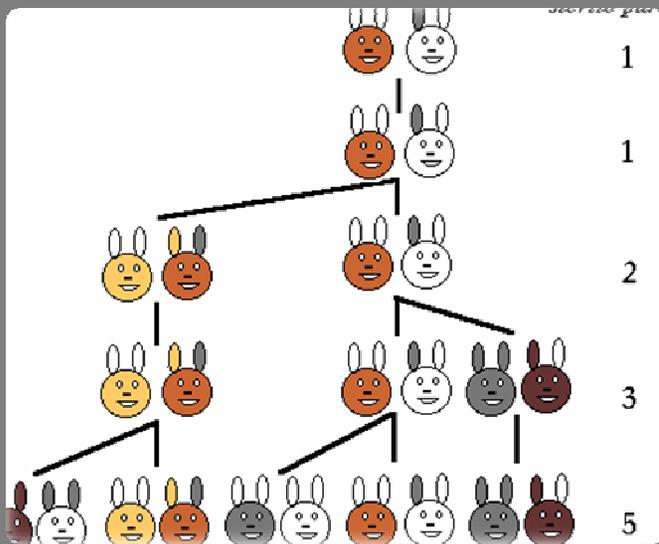
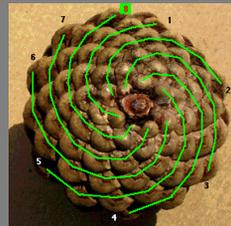
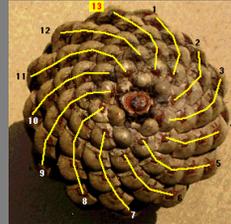
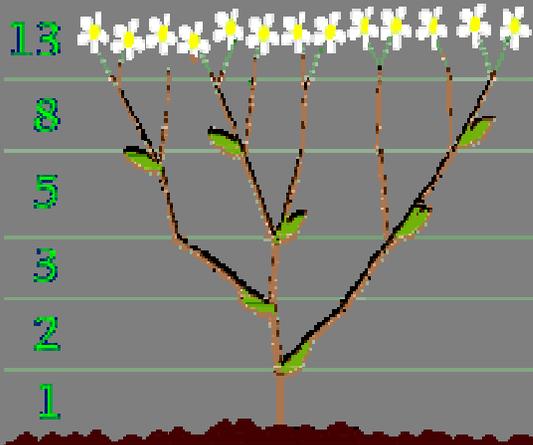


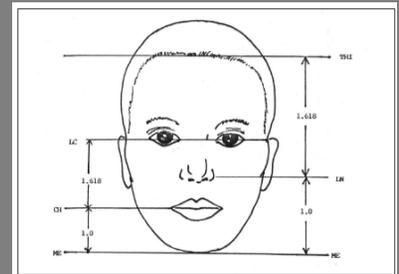
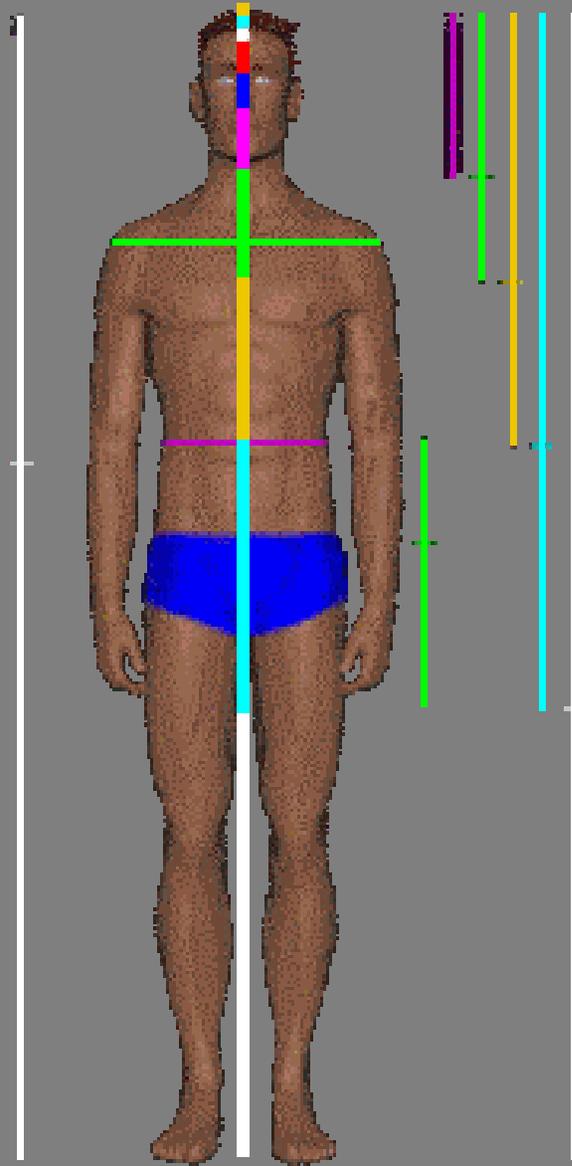
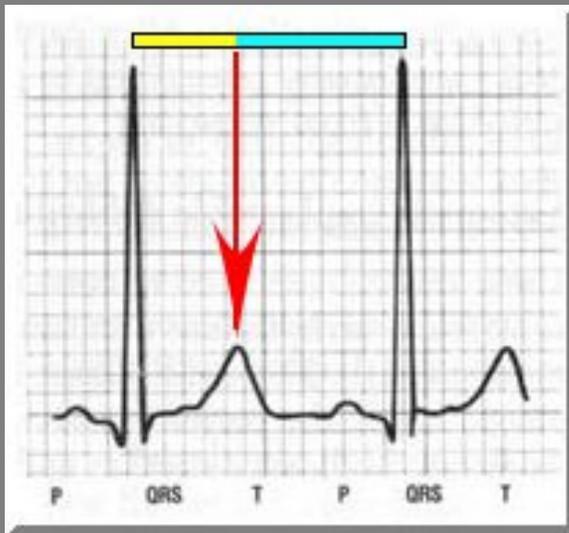
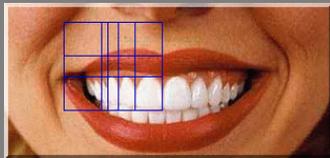
**Luca Pacioli**, italijanski matematik in frančiškanski menih, \* 1445, † 1514.

Sodeloval je s da Vincijem pri nastanku njegove knjige *De Devina Proportione* (1509)

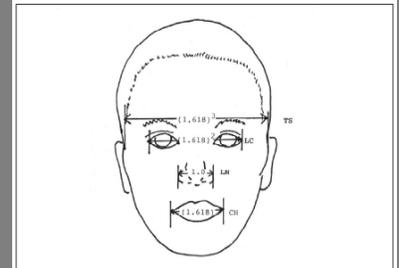
$\varphi$  kot naravna konstanta

Fidija / Phidias ; Fibonacci ??????

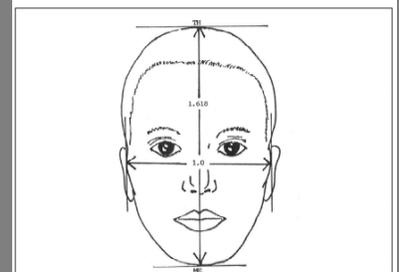




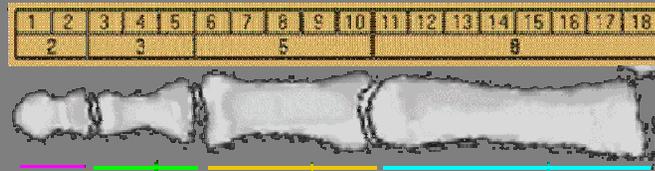
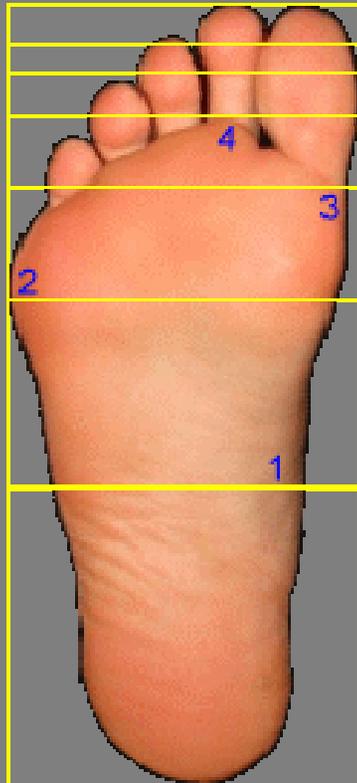
Vertical proportion



Transverse proportion



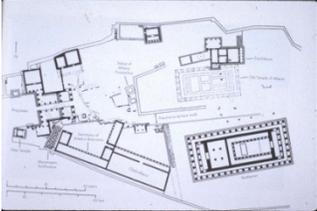
External proportion



# Zlati rez v antični umetnosti

tg1

Atenska akropola, 5. st. pr. Kr.



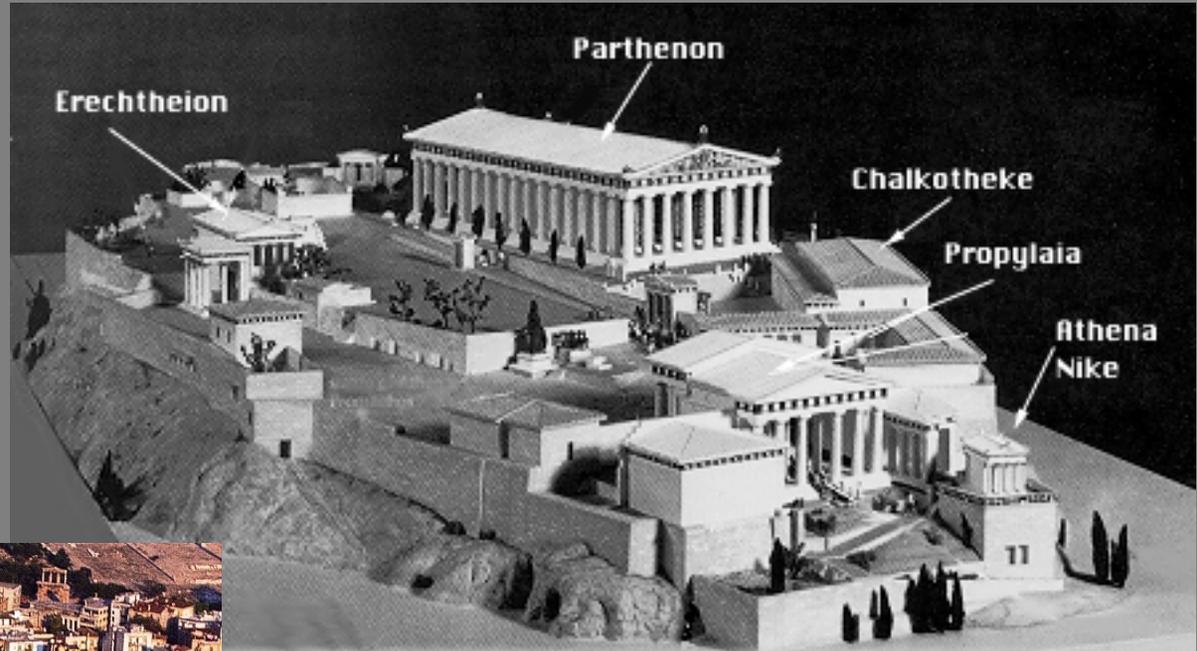
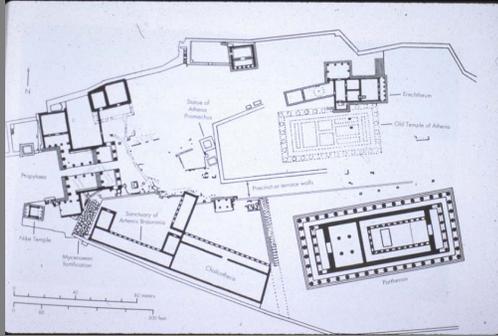
## Diapozitiv 16

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**tg1**

uvod v grško arhitekturo in urbanizem, pojasnilo, kaj je akropola, njen položaj in vloga v urbanistični zasnovi ter življenju mesta  
tine germ; 19.8.2007

Atenska akropola, 5. st. pr. Kr.



## Diapozitiv 17

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tg2

atenska akropola pod Periklejem vodja del Fidijskega kompleksa, temeljne značilnosti celote in posameznih delov akropole  
tine germ; 19.8.2007

tg3

Partenon, atenska akropola, sr. 5. st. pr. Kr.

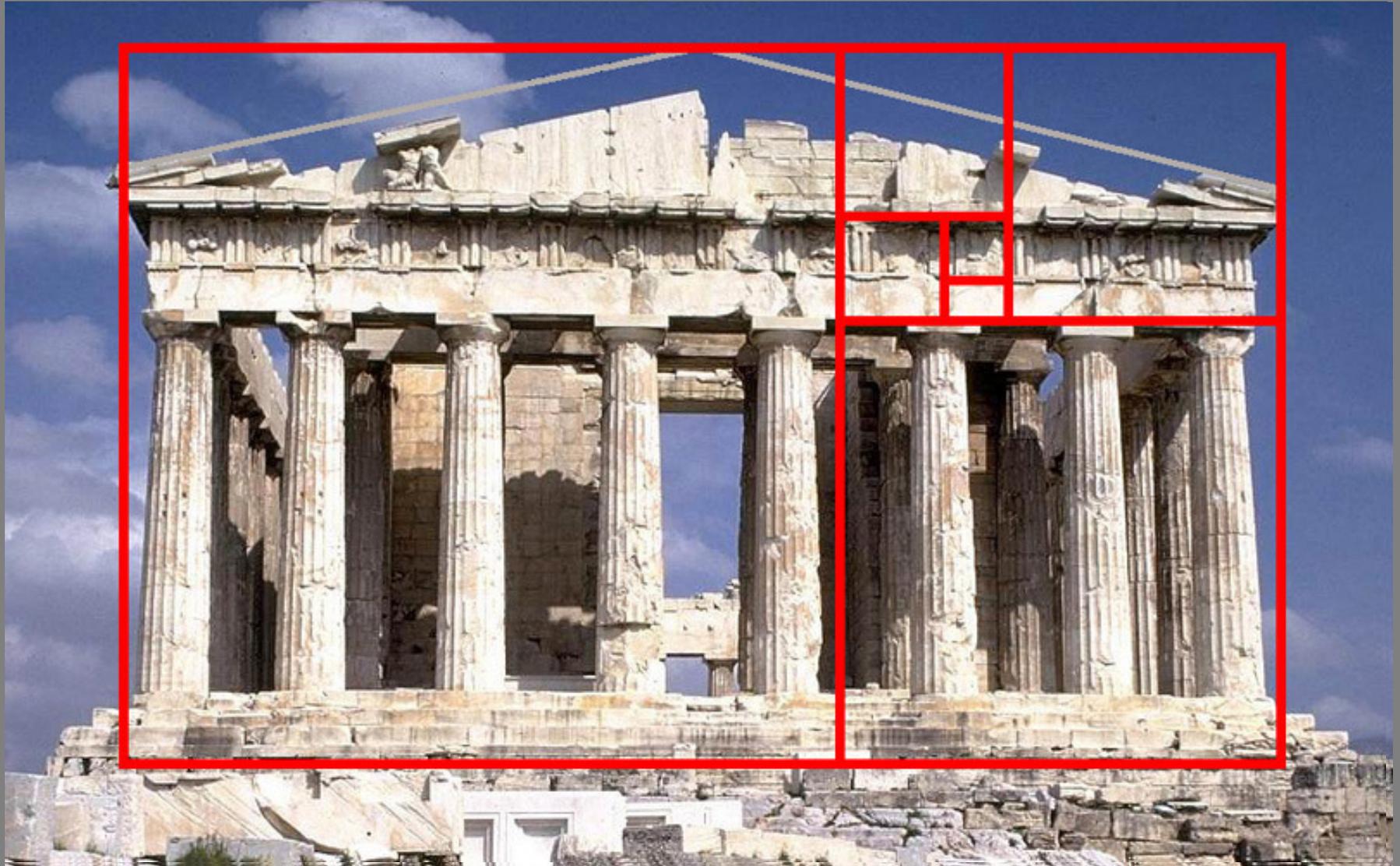


## Diapozitiv 18

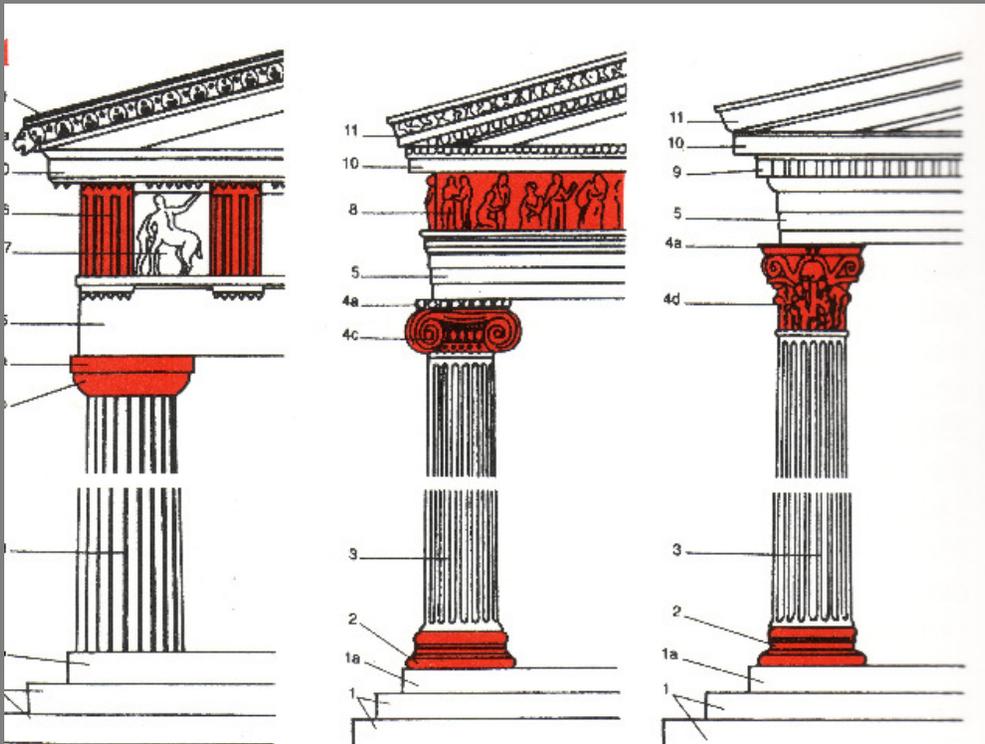
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tg3

Partenon analiza spomenika  
tine germ; 19.8.2007

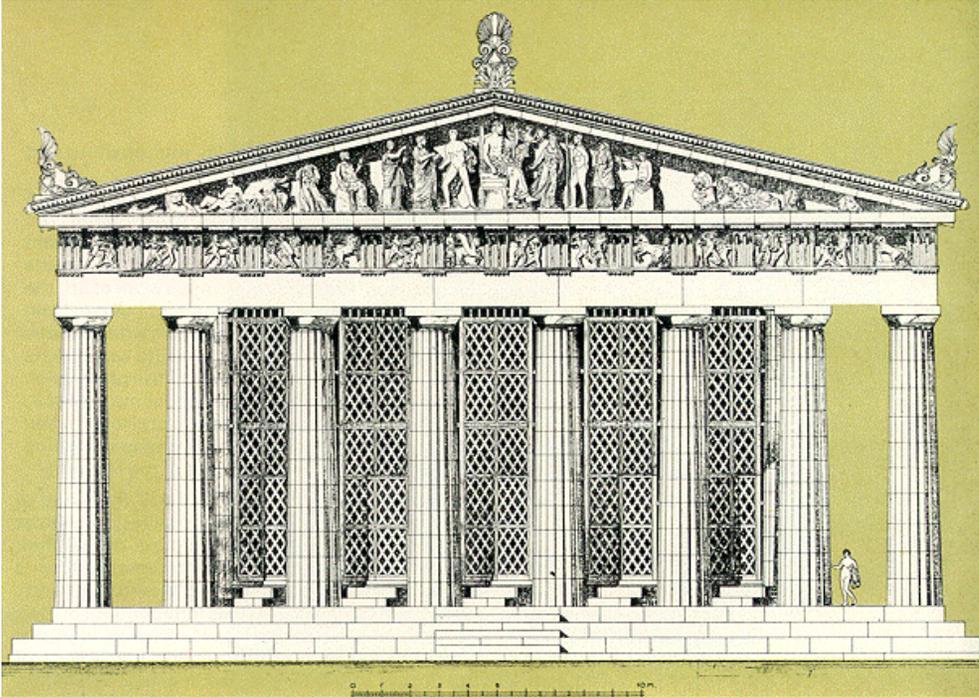


# VPRAŠANJE LEPOTE V GRŠKI ARHITEKTURI



- pravilni proporci
- enakomeren ritem
- logika enakih mer (metrum)
- Osnovna mera (modul)
- optične korekcije (ohranijo pravilen ritem arhitekture)

Partenon, atenska akropola, sr. 5. st. pr. Kr., rekonstrukcija



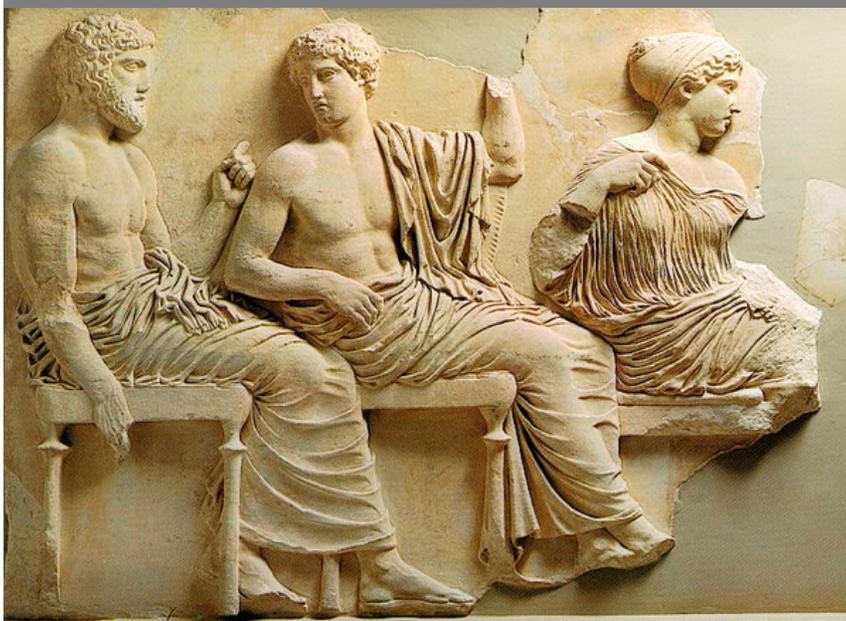
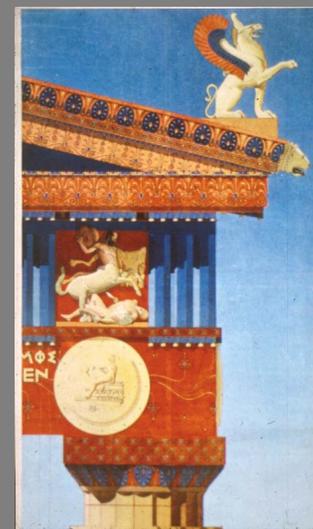
## Partenon, rekonstrukcija notranjštine



## Tolos, Delfi



Partenon, kiparski okras, sr. 5. st. pr. Kr.



Kariatide, Erehteion, atenska akropola

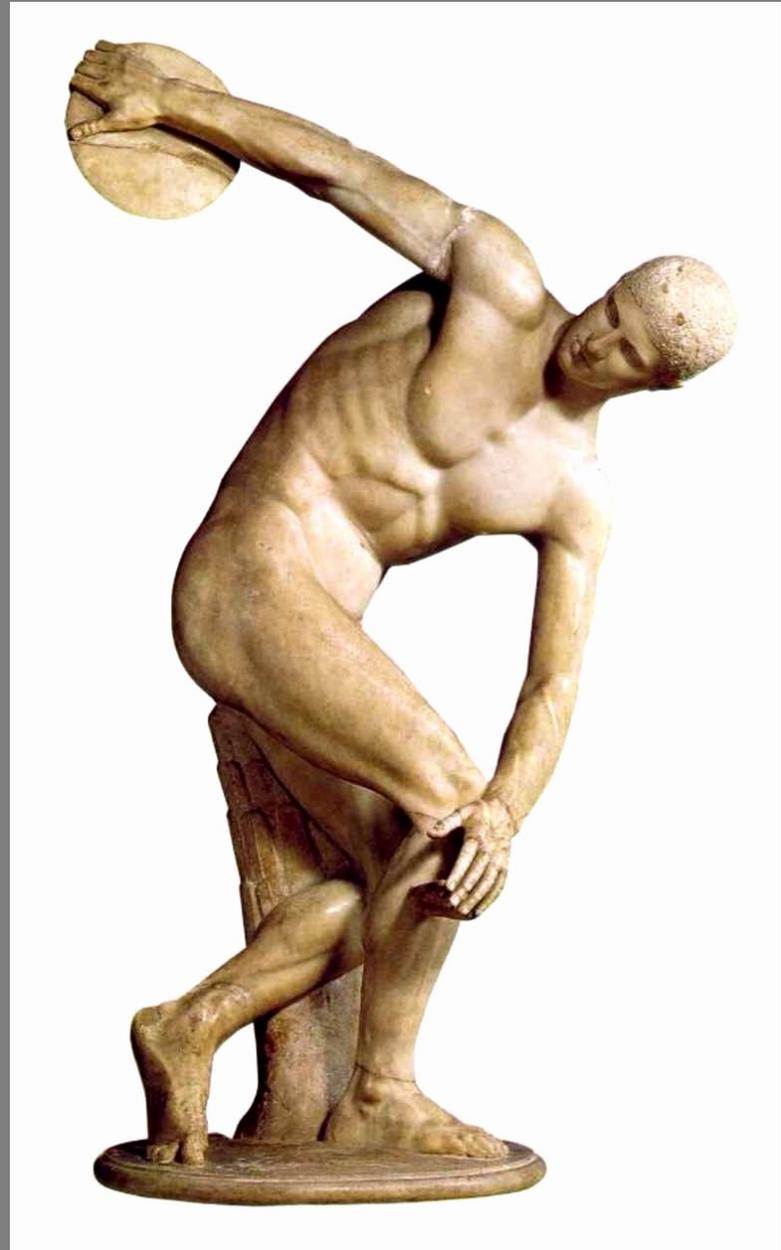


tg8

Poliklejt, Doriforos, sr. 5. st. pr. Kr.



Miron, Metalec diska, ok. 450 pr. Kr.



## Diapozitiv 26

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tg8

kiparstvo klasične dobe, kanon idealnih proporcev, anatomija, gibanje, perspektiva  
tine germ; 19.8.2007

tg9

Fidija, del partenonskega friza (Pozejdon, Apolon in Artemida, sr. 5. st. pr. Kr.

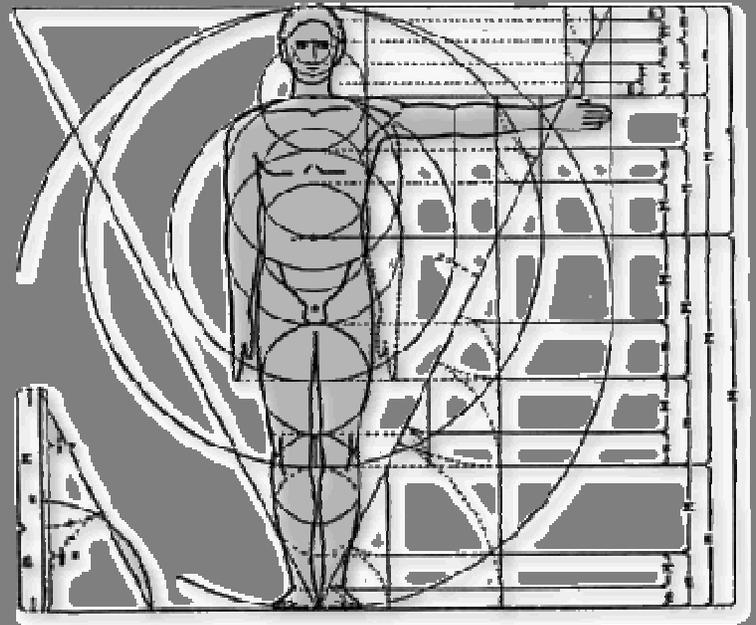
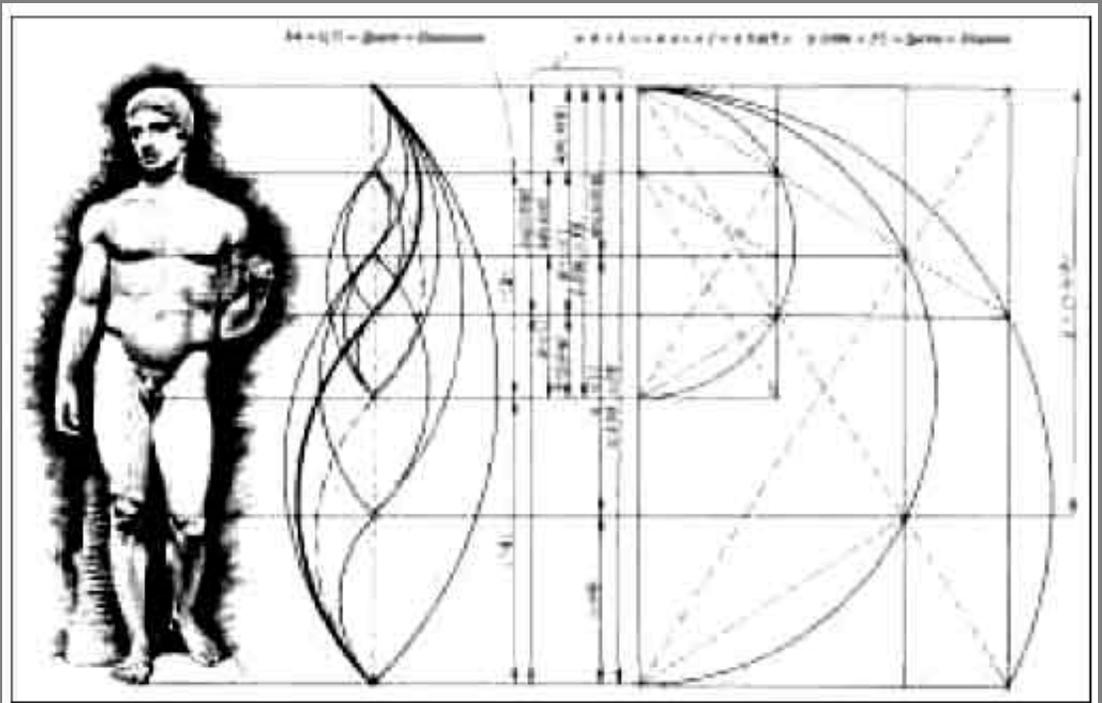
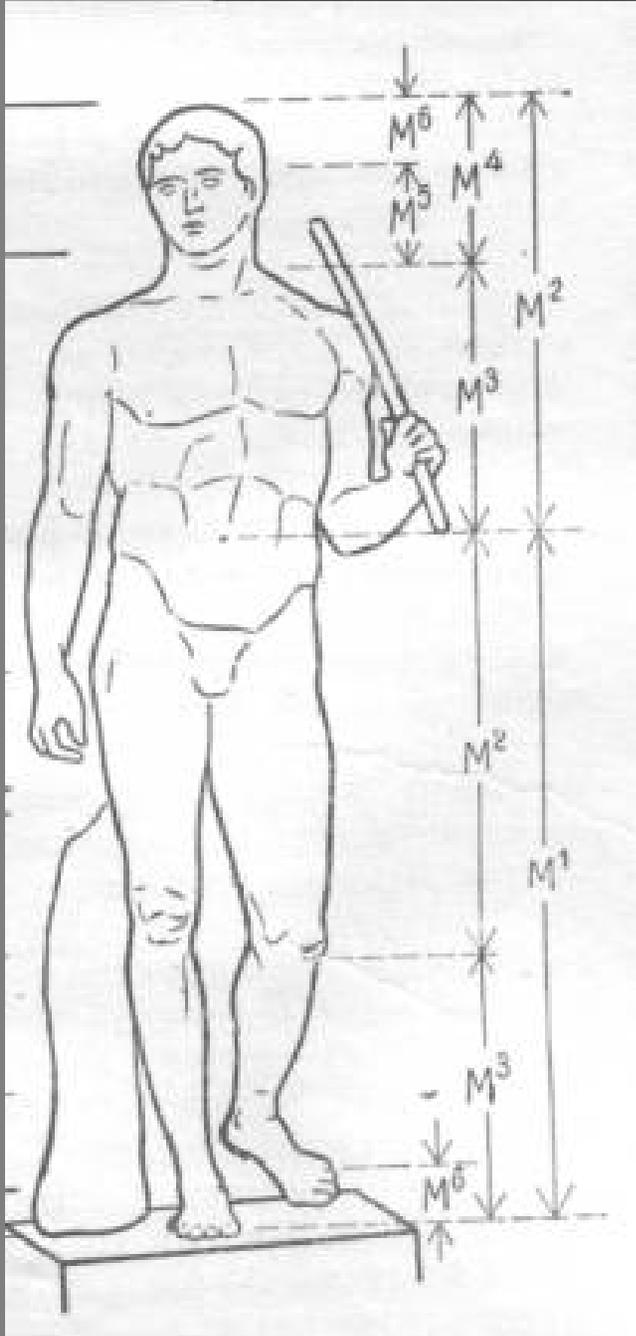


## Diapozitiv 27

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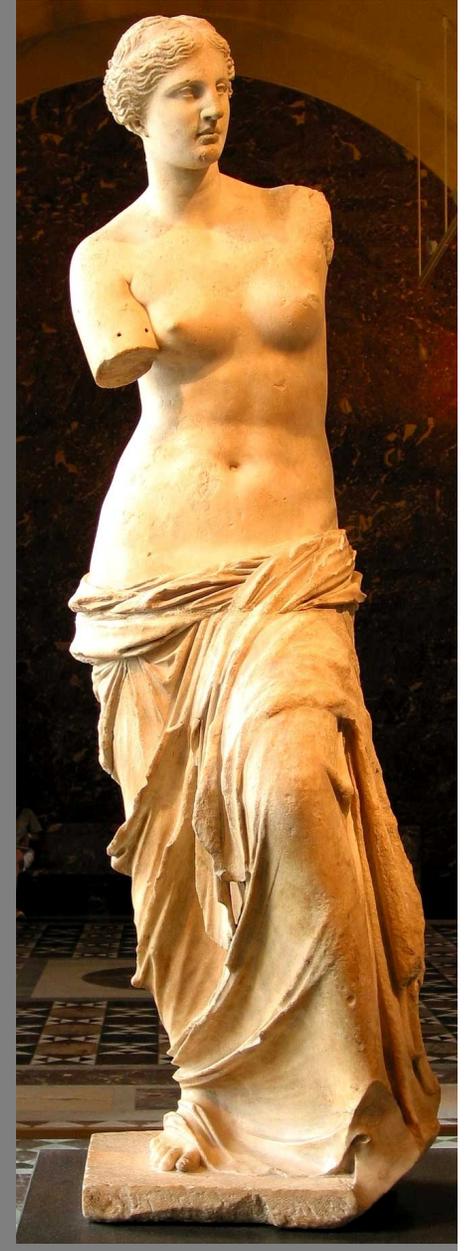
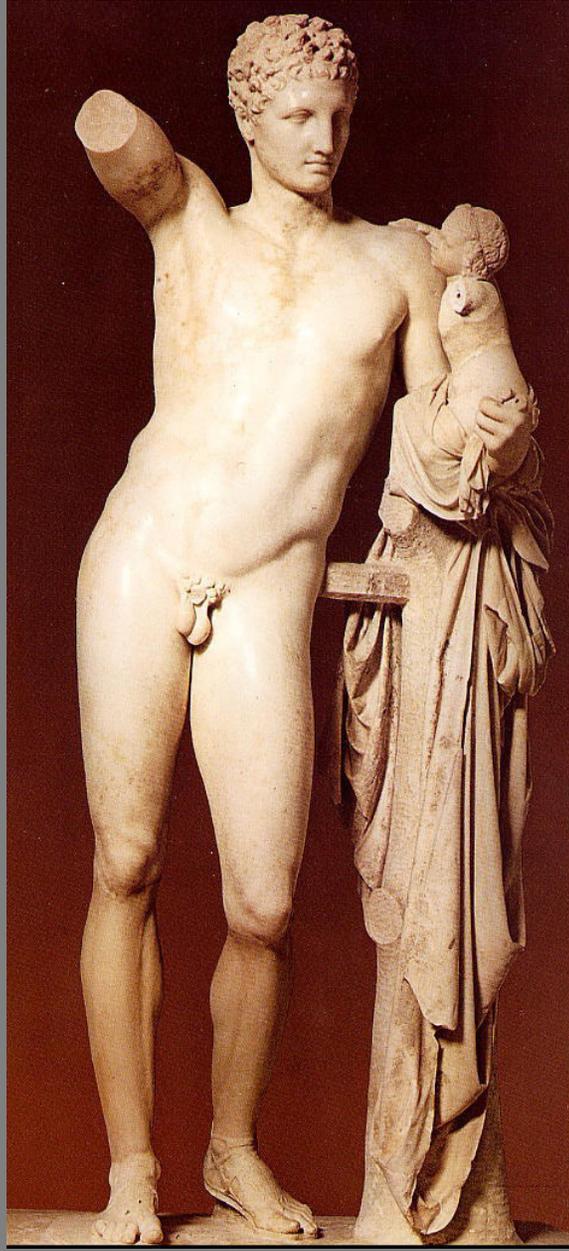
tg9

kiparstvo visoke klasike, Fidija, kiparski okras Partenona, povezanost z arhitekturo, relief, kontinuirani friz  
tine germ; 19.8.2007



tg12

Belvederski Apolon, Hermes iz Olimpije in Miloška Venera

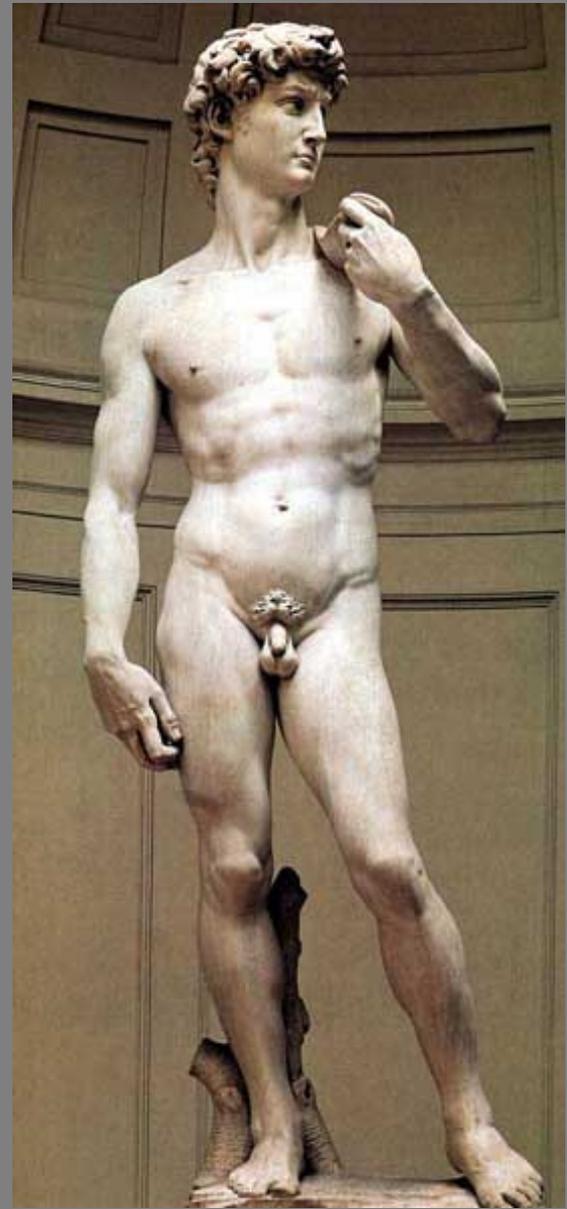
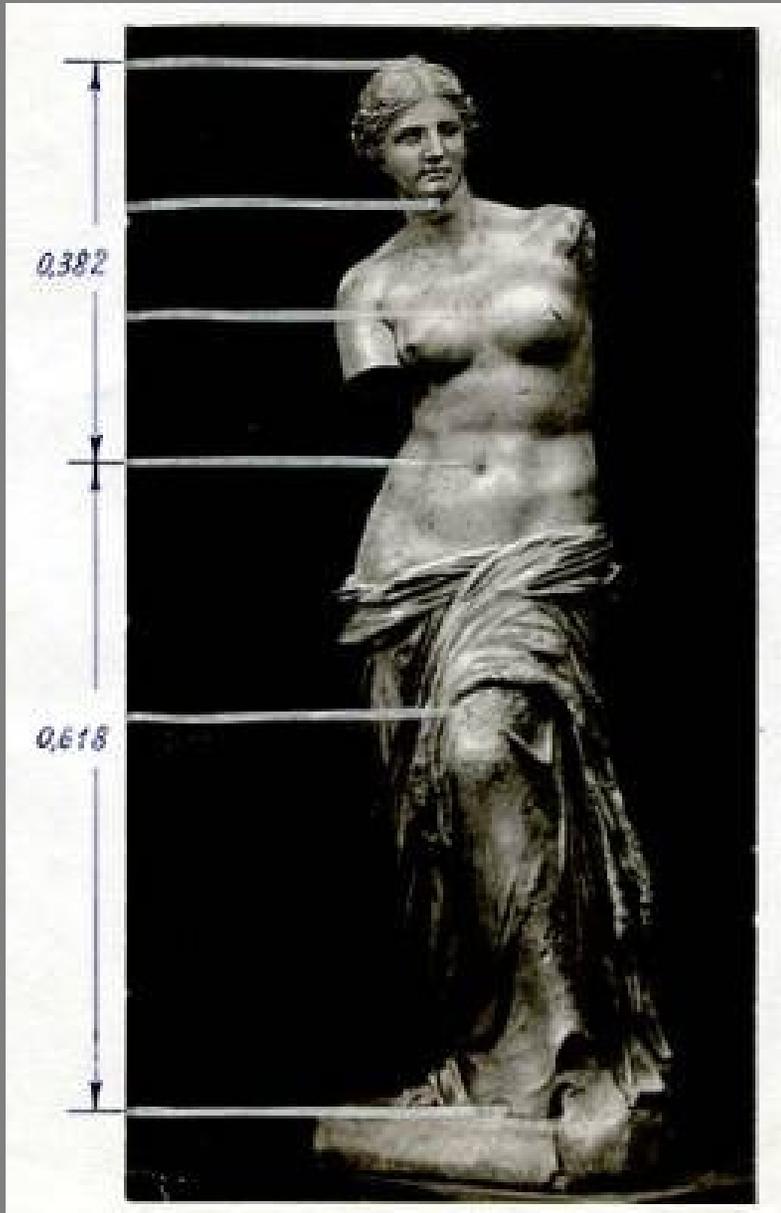


## Diapozitiv 29

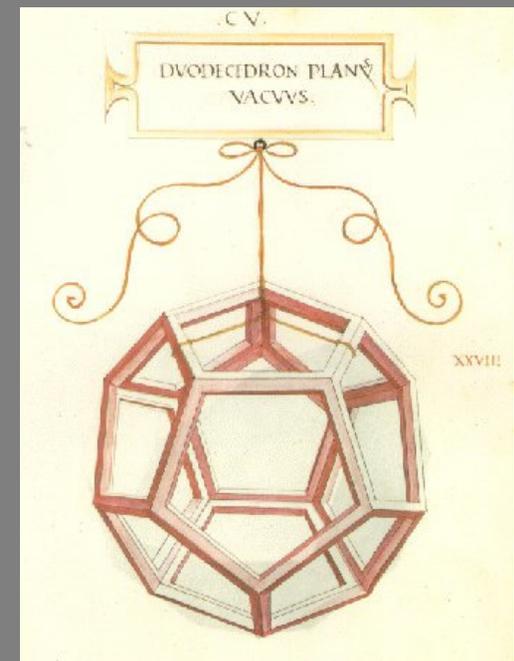
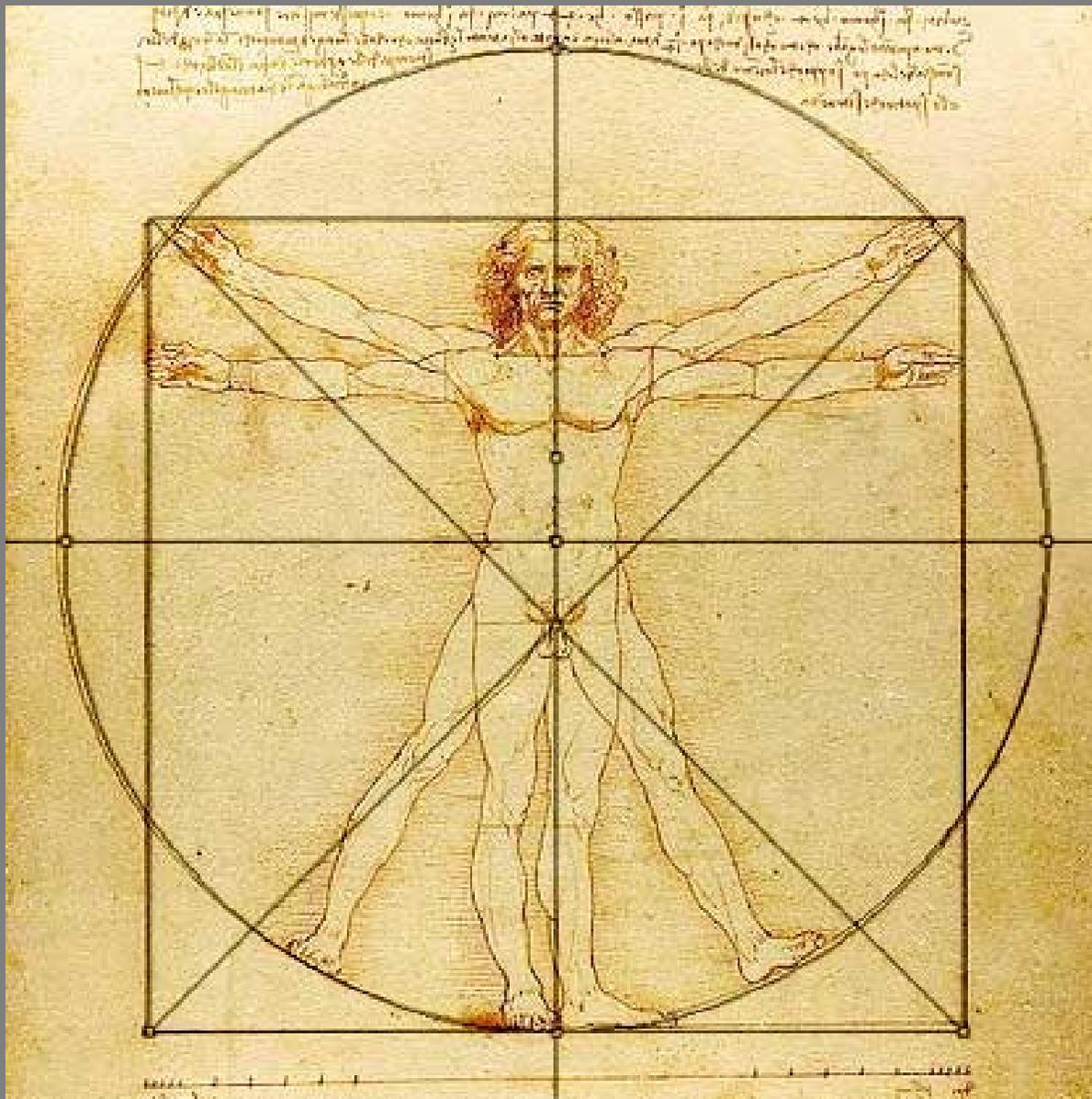
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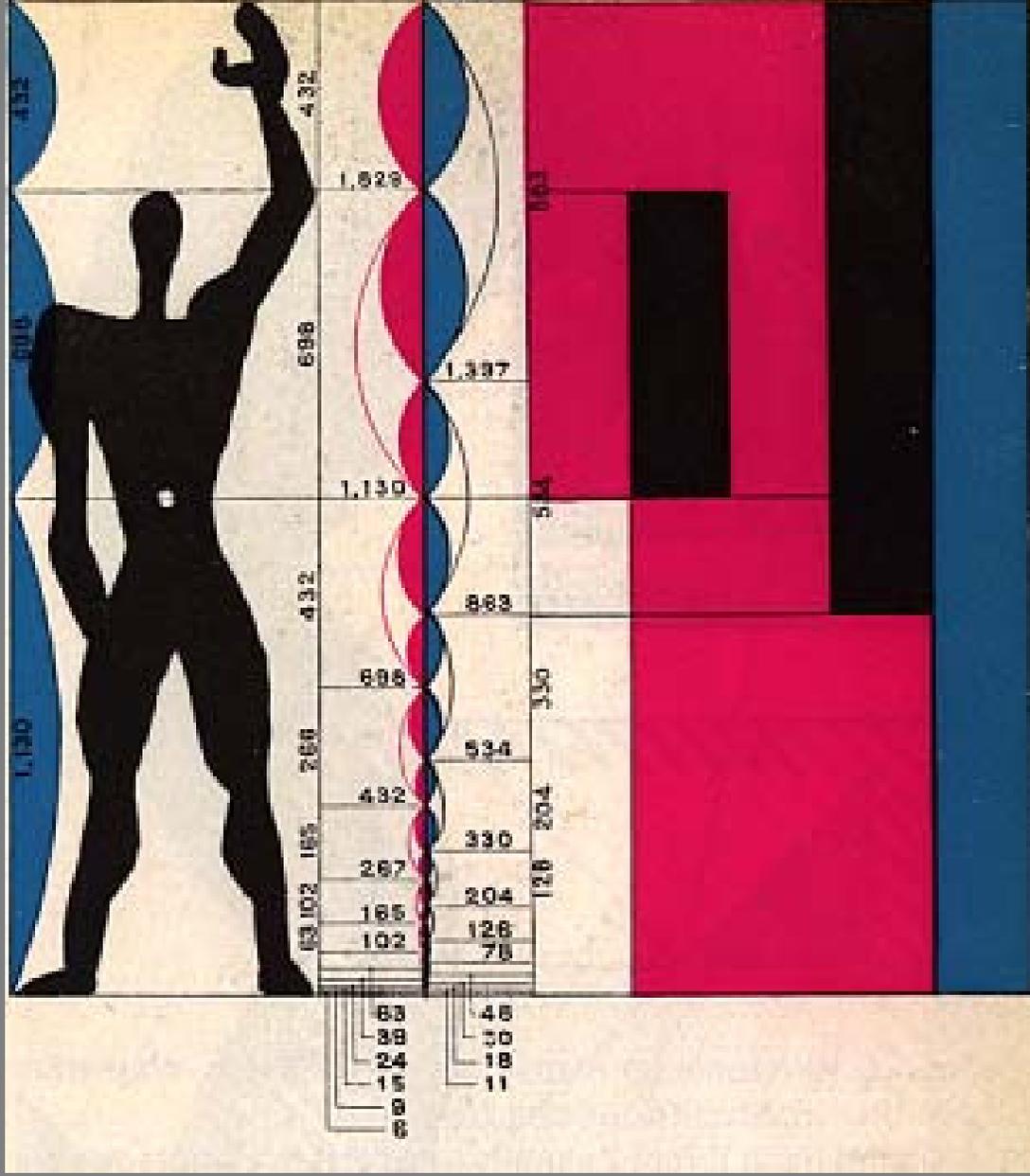
**tg12**

opredelitev značilnosti helenističnega akta  
tine germ; 19.8.2007



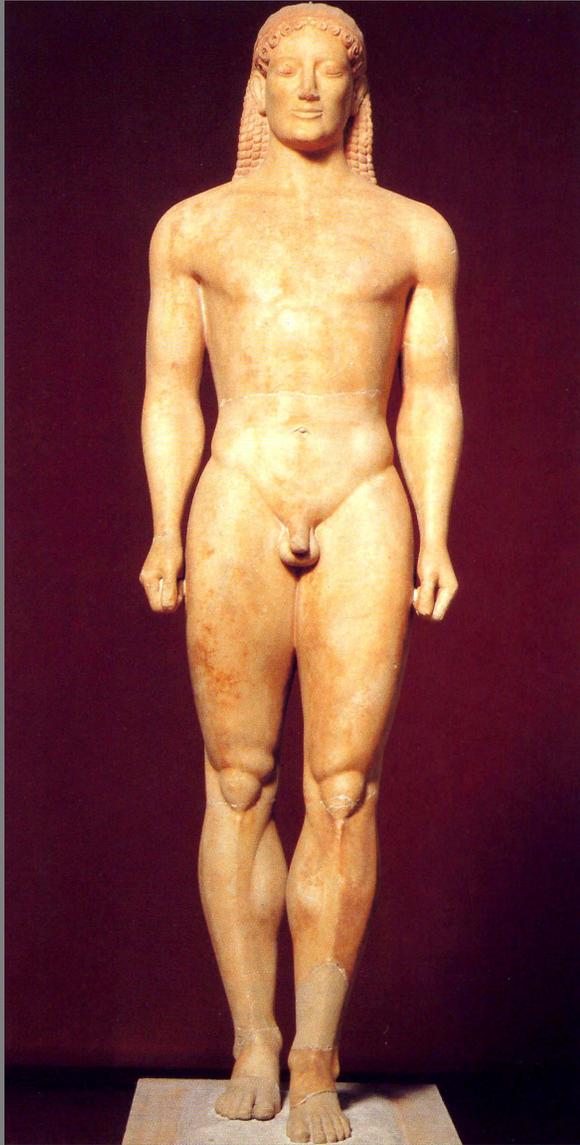






tg10

Kuros, ok. 570 pr. Kr.



Poliklejt, Doriforos, sr. 5. st. pr. Kr.



## Diapozitiv 34

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**tg10**

upodobitev atleta, človek kot središče zanimanja grške kulture in umetnosti, grški odnos do človeškega telesa, vloga športa, herojsko telo, motiv heroja...

tine germ; 19.8.2007

tg13

Kore, sredina 7. st. pr. Kr.



Kuros, konec 7. st. pr. Kr.



## Diapozitiv 35

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**tg13**

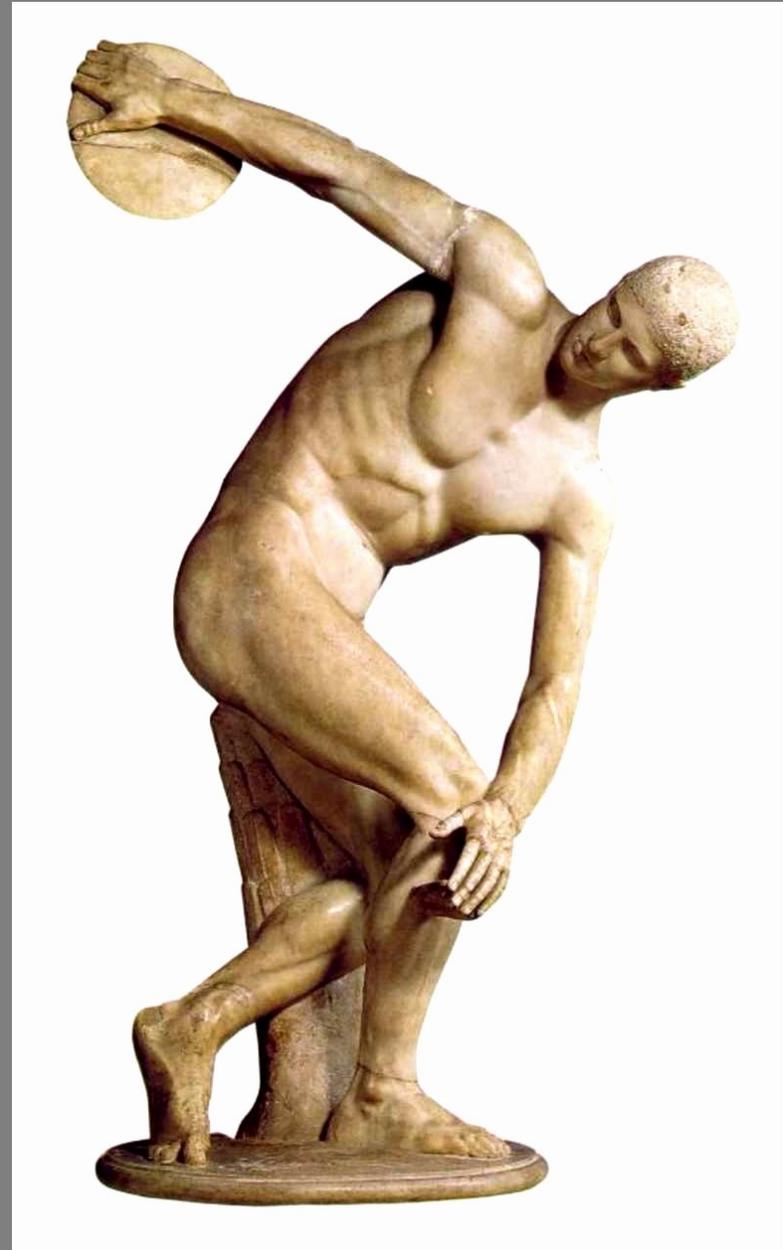
razvoj grškega kiparstva, predklasična (arhajska) doba, značilnosti kurosa in kore  
tine germ; 19.8.2007

tg14

Poliklejt, Doriforos, sr. 5. st. pr. Kr.



Miron, Metalec diska, ok. 450 pr. Kr.



## Diapozitiv 36

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**tg14**

kiparstvo klasične dobe, kanon idealnih proporcev, anatomija, gibanje, perspektiva  
tine germ; 19.8.2007

tg11

Leohares, Laokoontova smrt, rimska kopija helenističnega originala, Vatikan



## Diapozitiv 37

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**tg11**

oblikovne in vsebinske značilnosti helenističnega kiparstva, razgibanost, drama, patos, literarni motiv iz cikla o trojanski vojni  
tine germ; 19.8.2007

Vila misterijev v Pompejih, 1. st., Neapelj



Popmejanske freske – iluzija odpiranja v prostor in razvoj krajine, 1. st., Neapelj

