

Die Tragödie der Philosophie / The Tragedy of Philosophy  
Absolute philosophische Systeme / Absolute philosophical systems

*5.10.2022*



H bñ l x q j # 2 # q w r g x f w l r q



Vs br }d/#Ndqw/#lflkw/#Khjhø#

SD o#sk brvrsk lvfkhq#V | vwhp h/#g h#g h#J hvfk lfkw#ghu#Sk brvrsk h#  
qxu#Uj hqg#nhqqw#vwhq#vrcfk#K<sup>2</sup> uhv hqt/#ehz xvwh#xqg#jhz roh#  
Hbvhlwjnhlhq/#gdu/#z reh#q#kqhq#dohq#hgh#Vhwh#ghq#Dqvsuxfk#  
hukhew#dohv#}x#vhq.#44,1

D o#sk brvrsk lfde# | vwhp v#qgrz q#w#kh#k lwru|#r#sk brvrsk|#  
uhsuhvhw#xfk#khuhv hv\*#frqvf lrxv#dqg#ghdehudw#rqh0  
vghgqhvhv/#q#doh#z k lfk#rqh#vgh#f o l p v#w#eh#do1

SG hqq#gdv#7 | vwhp #lwq#lkw#dqghuv#dov#g h# xuí fniíkuxqj #yrq#  
Y hdp #kqg#D dp #lx#I bhv/#xqg#xp j hnhkuw/g h#D edlwqj #yrq#  
g hvhp #Y hdp#kqg#D dp#lxv#g hp #I bhq·#44 ,1

%Iru#kh# | vwhp #vqrw#bj #hov#kdq#kh#wdf#bj #edfn#  
r#kh#p dq | #dqg#kh#dov#kh#rgh/#dqg#yfh#hwd/#  
wh#g huydw#rgh#r#k#p dq | #dqg#dov#rgh#kh#rgh%#



Induxv

§G hp #Sk brvrskhq#lv#xqp üj ðfk /q lfkw#djhq#}x#z rðq /#hu#p xv#  
vlfk#q#ghq#õwku#ukhehq#G rfk#xqyhup hgdffk#vfkp hq}hq#vhbh#  
Idí jh#xqwhu#ghq#vwdkðq#ghu#v rqqh /#xqg#hu#wíu}w#xqg#}hvfkhow#  
+47,

ãw#v#p srwleð#irukh#sk brvrskhuqrwr#z lvk#w#id /#kh#p xw#uvh#  
bwr#kh#hwku#Exw#qhywdeq#k lv#z bjv#p how#xqghu#kh#d|v#r#kh#  
vxq /#dqq#kh#dow#dqq#vkdwhuwl%

G u h # J u x q q d u h q #  
g h u # h e w e h w p p x q j # g h v # G h q n h q v

W k u h # e d v l f # w | s h v #  
r i # k h # v h a 0 g h w u p b q d w r q # r i # k b n b j

41 K |srwvvh#rghu#Shwüqdfknhlw>

51 ghuhq#ghh#rghu#ghhöv#E lg/#Orjrv/#V bq>#

61 gdv#xewdqwdö#Vhbj#dv#Ibkh#wöu#P rp hqw#xqg#

Ehwlp p xqj hq#ghv#Vhbjv/#dv#fk#hdv huhqghv#Döv1

+4 < il>#6 ; il,

41#K |srwvvl#ru#shvrrq>

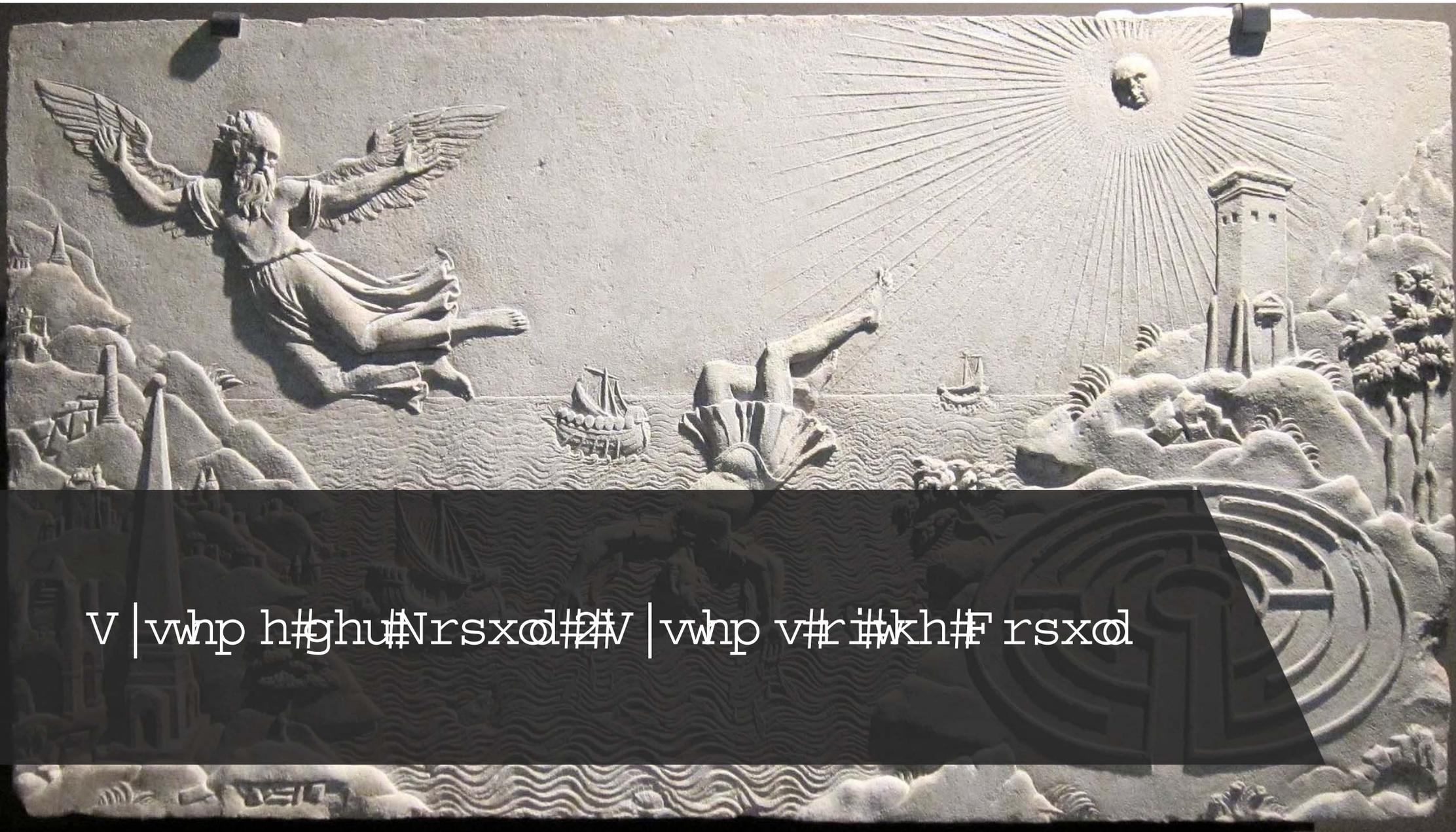
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ghwlp bdwrrqv#r#ehbj/#dv#kh#vhaühdvbj dö1

Smghv#X uhl#ehukw#qrarj lfk#dx#h bhp #doj hp h bhp#Y huk<sup>2</sup> oq lv#  
yrq#V xemnw#xqg#R emnw#g h#g lfkw#dqghuv#vbg#dov#h b#fk#@#  
K |srwlvh,#xqg#g hvvhq#Q dwu#g h#h bhp#g kdov#} xp #Dxvguxfn#  
eubjw#v h b#Su<sup>2</sup> g hndw#g dv#g xufk#g h#V h bvnrsxol b#h bhp#  
] xvd p p hqkdqj #p lghp #V dw} j h j hqvw d qg#j heudfkwz lg #g#g hu#  
Irup #ghv#X uhl#v#h j w#g dv#J hkh p q lv#xqg#g h#Q dwu#g hv#G hqnhqv#  
ehvfkarvvhq/#v h#v#g hu#V fkd vvh#} xp #Y huw<sup>2</sup> qgq lv#g hu#  
sk brvrsk lfk hq#V |vhp h#111#g#g hvhp #V bqh#whw#xqvhu#j dq}hv#  
Ohehq/#xqg#g duxp #dxfk#xqvhu#j dq}hv#G hqnhq/#h bhp#v lfk#w<sup>2</sup> qg lj #  
uhd v h u h q g h q #V dw} #g du#h bhp#V dw} #g hu#dxv#V dw} j h j h q v w d q g #  
Su<sup>2</sup> g hndw#xqg#Nrsxol#ehvwhkw.#54,1

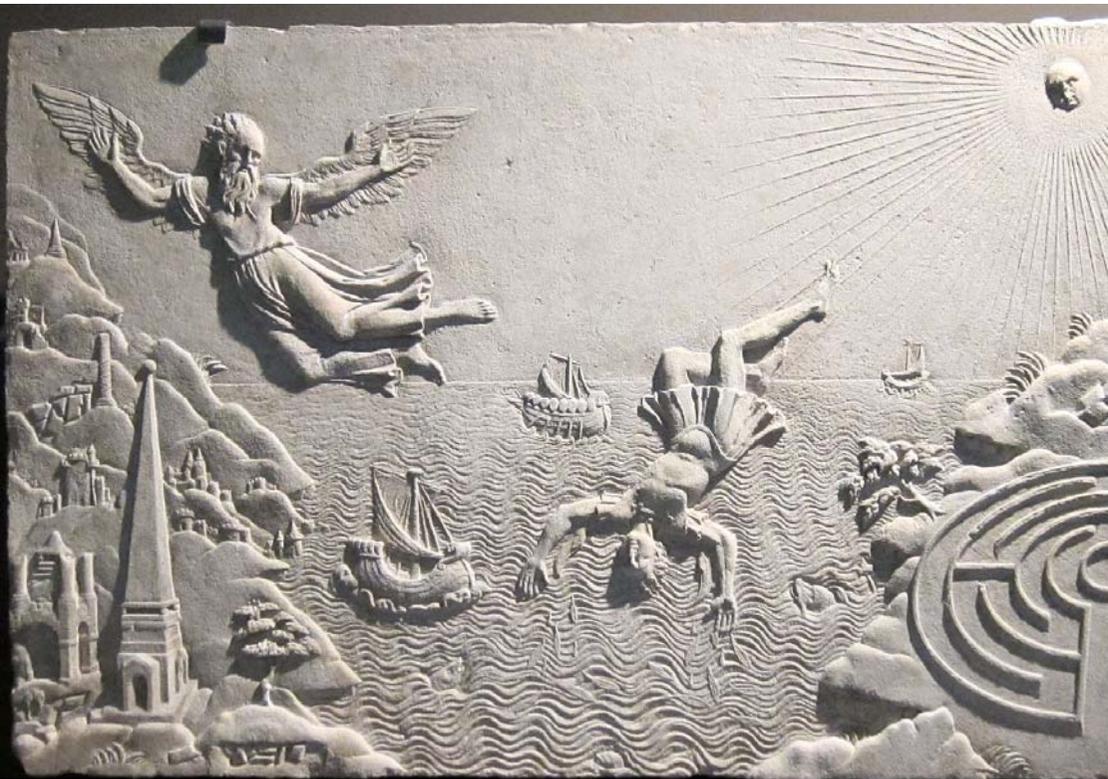
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vxemfw#dqg#remfw#z klfk#duh#grwk.bj#rwhu#kdq#dq##@#k |srwv#v#,#  
dqg#w#qdwuh/#z klfk#h {suhvvhv#w#frqwhqw#w#suhg lfdw/#z klfk#v#  
eurxjkw#qwr#d#hwdwrq#z wk#kh#vxemfw#r#kh#vhqwhqfh#e|#kh#eh.bj#  
frsxol#q#wk#h#rup #r#wk#xgjhp hqw#h#v#wk#vhfuhw#dqg#wk#qdwuh#  
r#wk#rxjkw#hvroyhg>#v#wk#h#h|#w#wk#xqghuwdqg.bj#r #  
sk.br#vrsk lfdq#v|w#hp v#^111#q#wk#v#vhqvh/#rxuz#kron#dh/#dqg#  
whuhiruh#rxuz#kron#wk#rxjkw#frqvwkwhv#d#frqvw#dqw#hdv#bj  
sursrv#wrq/#d#sursrv#wrq#frqv#vwqj#r#sursrv#wrq#d#remfw#  
suhg lfdw/#dqg#frsxol%



v | vhp h#ghu#Nrsxol#2#7 | vhp v#r#kh#F rxsol

SV h#w#gdv#}xvdp p hqj huroh#xqg#xqdeø vvlj #vfk#hqwidohqgh#  
DOOHV ·#< ; ,

aw#kh#frqwdfwng#dqg#fhdvhdvvd#xqirgqbj #D00·#< ; ,1



E d u x f k # g h # V s b r } d # 4 9 6 5 0 4 9 : : ,

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[kwsv=2|rxw1eh2F 8g7M{yrR yr](#)

Hwk h#q#j hrp hwvfkhu#R ugqxqj#gduj hwhow  
Hwk lf v/#G hp rqvwudwhg b#J hrp hwlf doR ughu  
Hwk lf d/#rug bh j hrp hwlf r#g hp rqvwudwd

SX qwhu#K udfkh#vh.bhu#høvw#yhuwnkh#fk#gdv/#ghvvhq#Ivvhq}#  
H { lwhq }#h.bvfkdhòw/#dqghu#rup xduw#gdv/#ghvvhq#Q dwu#xudw#  
h { lwhuhqg#ehj ulihq#z hughq#ndqq.#Hwk h/#B ,

⌘ |#dxvh r#lwha#xqghuwdqg#kdw#krvh#hvvhqfh#qfæghv#  
h { lwhqfh/#q#rkhu#z rugv/#kdw#krvh#qdwuh#fdq#rqd#eh#frqfhyhg#  
dv#h { lwhqj 1%

§<sup>α</sup> #ghqg#hghv#hz ljh#xqg#xqhggdfkh#Vh.hqgh/#gdv#z l#J rww#rghu#  
Q dwu#ghqghq/#kdqghow#dxv#ghuvh#ehq#Q rwz hqg lj nh.l#k hudxv/#dxv#  
ghu#hv#h { lwhuw#kdehq#z l#grfk#jh }h.ljw#Ohkuwdw}#4 9#ghv#4 1#Vh.lv,/#  
gdvv#hv#g hvh#eh#Q rwz hqg lj nh.l#vh.lghu#Q dwu#v#dxv#ghu#k hudxv#hu#  
h { lwhuw#xqg#kdqghow#Hwk.h/#5 : 8 ,1

•<sup>α</sup> #ru#kdw#whuqde#lqg#qib.lh#Eh.lj#z k.lfk z h#fdo#J rg#ru#Q dwuh#  
dfw#rxw#r#k#h#vdp h#ghfhvv.l#urp #z k.lfk#h#h { lw/#v.lfh#z h#kdyh#  
vkrz q#sursrv.l#rq#4 9#r #Sduw#4 ,#kdw#v#k#h#vdp h#ghfhvv.l#r #h#w#  
qdwuh#urp #z k.lfk#h#h { lw#lqg#dfw#1

Stxrg#G hxp #vix Q dwudp #ds sholp xv.

+Hwk h2Hwk Ifv 6 : 7 ,1

Stp vwdqgh#vhb#qfkw#}x#n{ lwhuhq/#w#R kqp dfkw/#z<sup>2</sup>kuhgg#p vwdqgh#  
vhb#}x#n{ lwhuhq/#P dfkw/#w#z h#vfk#yrq#vhevw#yhuwkw,#Z hqq#  
ghp qdfk#gdv/#z dv#hw}wqrwz hqqlj huz hlvh#n{ lwhuw#qxu#hggdfkh#  
Hqw<sup>2</sup>whq#vbg/#gdqq#vbg#hggdfkh#Hqw<sup>2</sup>whq#p<sup>2</sup>fkwljhudv#hb#  
xqehg bj#wxqhggdfkhv#Vh.hqghv>#xqg#gdv#w#z h#vfk#yrq#vhevw#  
yhuwkw,#z bhuvbqqlj >#dvr#n{ lwhuw#hqwz hghu#qfkw/#rghu#hb#  
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Qxq#n{ lwhuhq#z ludehu/#hqwz hghu#q#xqv#vhevw#rghu#q#hbhp #  
dqghuhq/#gdv#qrwz hqqlj huz hlvh#n{ lwhuw#vkhk#D { lrp #1#xqg#  
Ohkudw)#: ,#Dvr#n{ lwhuw#hb#xqehg bj#wxqhggdfkhv#Vh.hqghv/#g1k1#  
-qdfk#Ghiblwrq#D ,#Jrw#qrwz hqqlj huz hlvh.#Hwk h/#58 ,#

·Wr#eh#de#qrwr#h { lw#v#srz hubvqhv/#z kb#wr#eh#de#qrwr#h { lw#v#  
srz hu#dv#v#v#h#hy#ghqw,#k#k#h#h#ir#z kd#w#qrz #ghfhvvdub#h { lw#  
duh#rqd#ib#l#h#q#w#l#h#v/#k#h#q#ib#l#h#q#w#l#h#v#duh#p ruh#srz hu#x#k#d#q#d#q#  
devroxhd#q#ib#l#h eh#bj >#d#q#k lw#v#dv#v#v#h#hy#ghqw,#devxug>#r  
h#k#h#u#q#r#w#k#bj#h { lw#/#r#d#q#devroxhd#q#ib#l#h eh#bj #ghfhvvdub#d#v#r#  
h { lw#/#E#x#w#q#r#z #z h#h { lw#/#h#k#h#u#q#r#x#w#h#q#h#v#r#u#q#d#q#r#w#k#h#u#z k#f#k#  
ghfhvvdub#h { lw#/#v#h#h#d { lrp #d#q#k#h#r#h#p #: ,#V#r#/#d#q#devroxhd#  
q#ib#l#h eh#bj /#h#h#d#f#f#r#u#g#bj#r#q#h#i#q#l#r#q#9 ,#J#r#g#/#h { lw#  
ghfhvvdub ¶1

Σ dv#lxfk#p p hu#w#w#q#J rw#xqg#q lfkw#ndqg#rkqh#J rw#vhlq#  
rghu#ehjulihq#z hughq·#Hwk h/#64 ,1

•Z kdwyhu#v#v#q#J rg#dqg#grwk bj#fdq#eh#rueh#rp sukhqghg#  
z lkrxw#J rg¶1

Vs br }d#vdjw#gdvv#v#h#z ghuvbqqlj #duj xp hqwlhuhq#xqg#gdvv#kuh#  
Dqqdkp hq#q#fkw#dxv#h#hu#xqhggdfkh#J üÒh#irg hq/#Svrqghuq#dxv#  
ghu#Dqqdkp h/#h#bh#xqhggdfkh#J üÒh#vh#p hvvedu#xqg#dxv#  
hqqgdfkhq#W#h#bq#}xvdp p hqjhvhw}w#Hwk h/#6 : ,1

Vs br }d#vd|v#wkw#kh|#duh#dujx#bj#q#d#frqwdg#fwrul#z d|#dgg#wkw#  
wh#l#dvvxp swrqv#gr#qrw#ir#orz #urp #dq#qib#w#txdqw|#exw#urp #  
wh#l#dvvxp swrq#wkw#dq#qib#w#txdqw|#v#p hdvxude#d#dgg#  
frp srvhg#r#i#q#w#sdw#1

SD d#G bjh/#vdjh#fk/#vbg#q#J rwy/#xqg#d d#G bjh/#gh#vfk#  
huhlj qhq/#huhlj qhq#vfk#gxufk#gh#e ar`ohq#J hvhw}h#ghu#kqhggdfkhq#  
Q dxu#J rwhv/#irg hq#d or#dxv#ghu#Q rwz hqg lj nh l#vh ghu#Ivvhq } .#  
+Hwk h/#74 ,1

•D o#k b j v/#vd |/#duh#q#J rg/#dgg#d o#k b j v#kdw#rffxu/#rffxute |#kh#  
p huh#dz v#r#J rg\*v#qibq l#ghdwh/#kxv#r or z b j #urp #kh#ghfhvvl#  
r#K l#hvvhqfh 1

G dv#Sub}ls#yrq#V s br}dv#R qwr r j h#l w#ghu#E h j u l i#J r w h v#d o#  
z h v h q k d i w#P d f k w#S h l q h#P d f k w#g h#d o l q#g d u b#e h v w h k w#G b j h#}x#  
s u r g x}h u h q/#x q g#g h#v l f k#g#g h v h u#S u r g x n w l r q#h v w o v#h u i l o v#H w k h/#

U ,1

W k h#s u b f l s o#r i#V s b r}d\*v#r q w r r j|#v#w k h#f r q f h s w r#J r g#d v#d#  
f r q v x e v d q w d e s r z h u#d#s r z h u#z k l f k#d o r q h#f r q v l w#q#s u r g x f b j#  
w k b j v/#d q g#z k l f k#v#f r p s o w h q#x a l o g#g#w k l v#s u r g x f w l r q#1

G hu#Y huw d q g # J r w h v # x q g # g h u # Y huw d q g # g h v # P h q v f k h q # r p p h q # p x u #  
p # Q d p h q # e h u h b / S v r # z h # g d v # e h l # g h p # / w h u e l o # K x q g # x q g # g h p #  
e h o n g g h q # W h u # K x q g # g h u # I d o # w # H w k h / # 7 : , 1

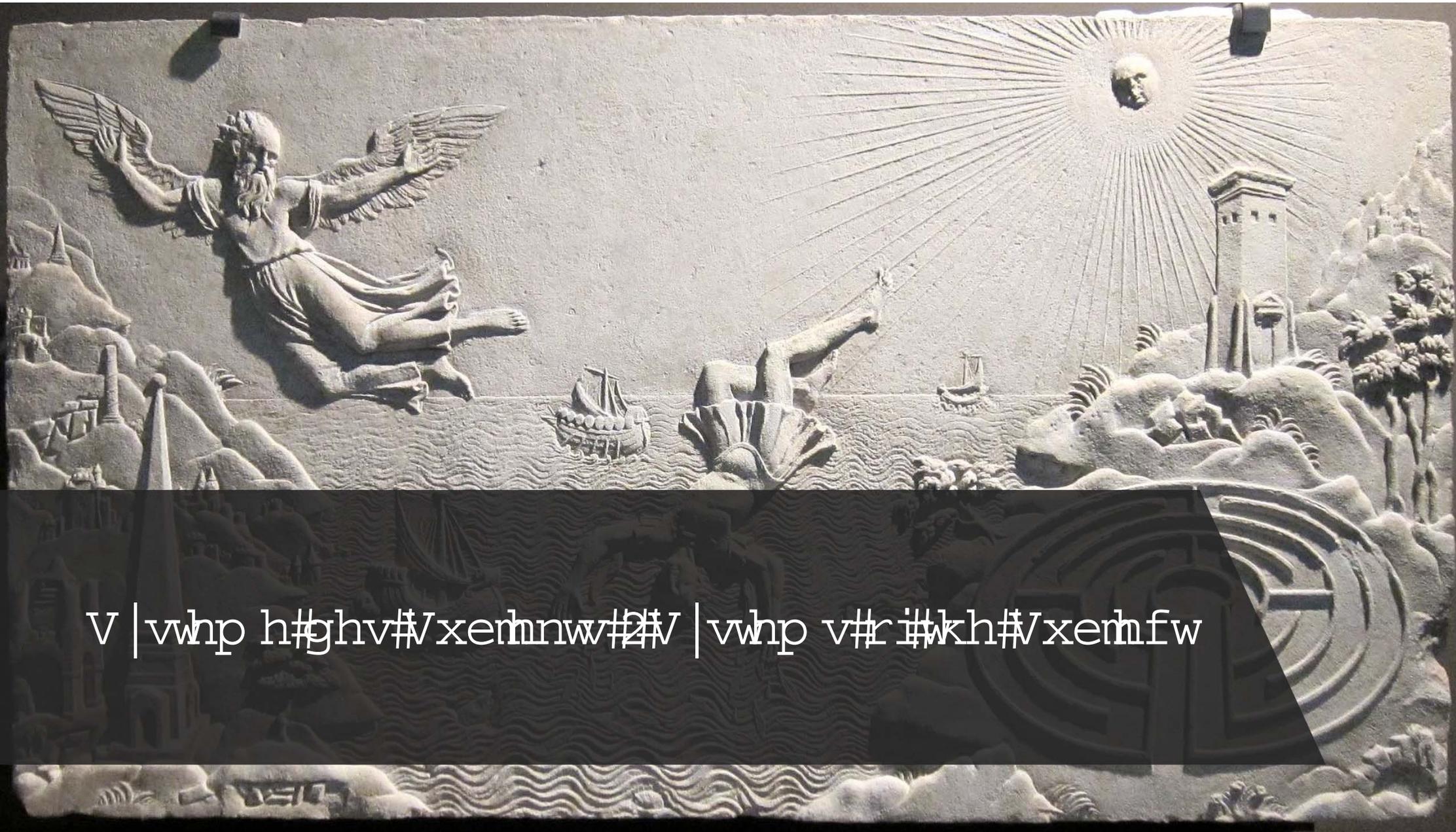
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w k h # f d v h # z l k # w k h # f r q v w h o l w r q # g r j # d q g # w k h # e d u n b j # d q p d # g r j #

SG hqq#z dv#y huxwdfkw#w#xqwhufkh ghw#lfk#yrq#vh bhu#X wdfkh#  
j hqdx#q#ghp /z dv#v#yrq#ghu#X wdfkh#kdw#Hwk h/#7 : ,1

•Iru#z kdw#v#f dxvhg#g lihu#iurp #w#f dxvh#suhf lvhd #q#z kdw#kdv#  
iurp #kh#f dxvh#1

SK hup wkdeh#fk#J rwhv#Q dwu#xqg#vh.bh#I lj hqvfkdi.hq#hqwz lfnho#  
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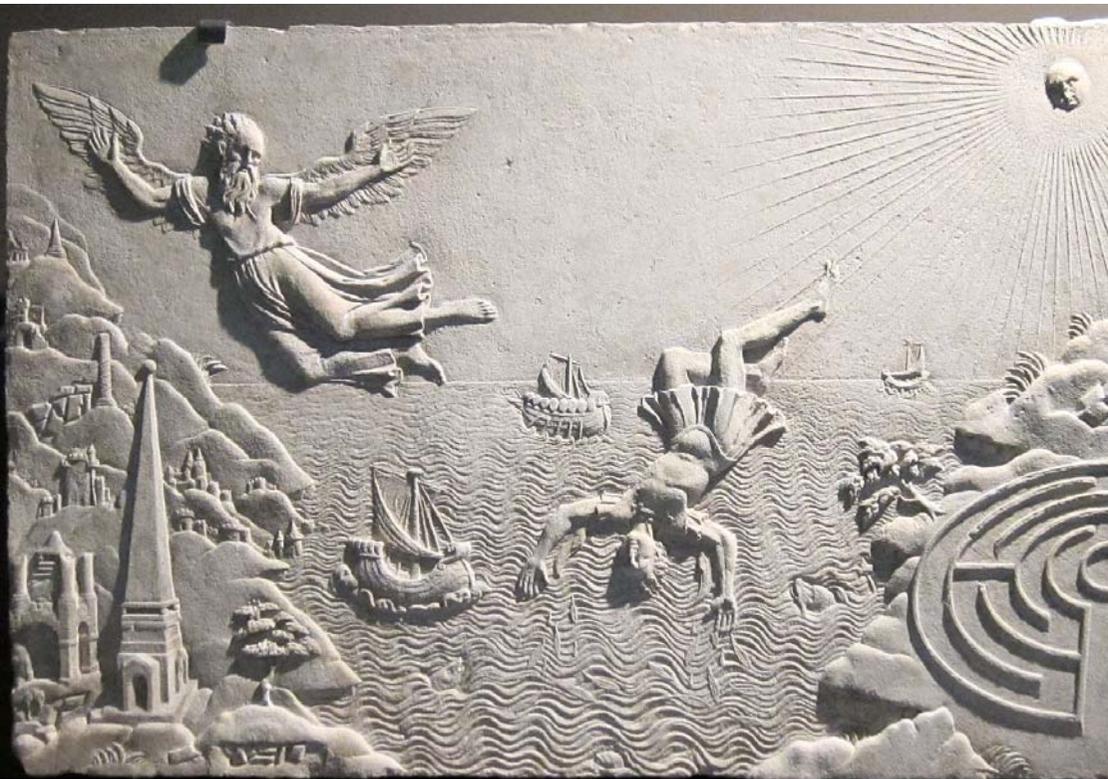
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qhfhvvdub | #kdw#h#v#xq l xh>#kdw#h#v#dqg#dfw#iurp #kh#p huh#  
qhfhvvlw | #r #k l v#qdwuh>#kdw#h#v#kh#huh#fdxvh#r #dowk.bjv/#dqg#q#  
z kdwp dqghu#h#v#vr>#kdw#dowk.bjv#duh#q#J rg/#dqg#vr#edvhg#rq#  
k.p #kdw#z lkrxwk.p #kh|#fdq#qh.lkhuteh#gruteh#frp sukhqghg>dqg#  
iqdo | #kdw#dowk.bjv#kdyh#ehhg#suhghw#qhg#e | #J rg/#dqg#kdw#qrw#  
iurp #uhhgrp #r#z l#ru#dq#xqfrqg lwrqde#s#dovxuh/#exw#iurp #J rg tv#  
xqfrqg lwrqde#qdwuh#ru#qibw#srz hu#1



v | vwhp h#ghv#7xemnww#2#7 | vwhp v#r #kh#7xemnfw

SK huz lg#gdv#sk brvrsklvfk#G hqnhq#yrudop #gxufk#hgh#  
xqehwhleduh#Dxvdjh#xqvhuhv#Vhewehz xvwhbv#yhuz xqghw#  
yrq#sk brvrsklvfkhp #Vdxqhghuj ulihq/#gdvv#dov#Vh hqgh#p #fk/#  
yrughp #fk#xqg#Iugdv#fk#hl.#Wudj ügh/#6 < ,1

•Khuh/#sk brvrsklfdok bn bj #v#deryh#dop#dvrqlvkhg#e | #kdw#  
bg lvsxwdeh#vdwhp hqw# #rxu#hd0frqvf lrxvqhvv/#vhl}hg#e | #  
sk brvrsklfdop#dvrqlvkp hqw#kdw#yhu|wk bj #kdw# { lww#v#q#kh#L/#  
ehirh#kh#p#dgg#irukh#L|1



Ip p dqxhc#Ndqw#4 : 5704 ; 37 ,

Nxu}h.bqí'kuxqj #2#kruw#qurgxfwlrq  
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Nu~~l~~h#ghu#h~~l~~qh~~q~~#Yhuqxqiw  
Nu~~l~~h#ghu#s~~u~~dnw~~v~~fkhq#Yhuqxqiw  
Nu~~l~~h#ghu#K~~u~~h~~l~~bnudiw

F~~u~~ltxh r#S~~x~~uh#Jhdv~~r~~q  
F~~u~~ltxh r#S~~u~~dfw~~f~~doUhdv~~r~~q  
F~~u~~ltxh r#M~~x~~gjp hqw

SR e#gh#Ehduehwxqj#ghu#Hunhqqwlvh/#gh#}xp #Yhuqxqiwj hvfk<sup>2</sup> iw#  
jhkühq/#ghq#vfkhuq#J dqj#hghu#Z lvhqvfkd iw#jhkh#rghuq lfkw#  
gdv#3 vww#vfk#edg#dxv#ghp #Huirg#ehxw#hghq·#NuY 53 /E#YIL,1

•Z khwkh#kh#surfhvvbj#r#kh#nqrz dgjh/#z klfk#ehorqj v#r#kh#  
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Wkdðv#j b\_j #.l\_b#0lfkwðxi#Sghqq#hu#dqg /g dvv#huq lfkwhp /#z dv#hu#q#ghu#  
I l\_j x\_u#vdk /#rghu#dxfk#gph #e a`0hq#E h\_j ulih#g huwhø hq#gdfkvs Í u\_hq#kqg#  
j ð.lfkvd\_p #gdyrq#k\_uh#I l\_j hqvfkd\_i\_hq#de ð\_u\_hq /#vrqghuq#g\_xufk#g\_dv/#z dv#hu#  
qdfk#E h\_j ulihq#v\_hø v\_#d#s\_u\_rul#k\_b\_h\_b\_gdfkwh#kqg#g\_duwh\_oh#g\_xufk#  
Nr\_qvw\_xnw\_rq, /#k\_huyr\_eub\_j\_hq#p Í\_vh /#kqg#g\_dvv#hu#x\_p #v\_lfkhu#hwz dv#d#s\_u\_rul#  
}x#z l\_vh\_q /#hu#ghu#v\_dfk\_h#g\_lfk\_w#e\_h\_b\_j\_hq#p Í\_vh /#d\_v#z dv#d\_xv#g\_hp #g\_rwz\_hqg\_l\_j#  
ir\_g\_w /#z dv#hu#v\_h\_b\_hp #E h\_j ulih#j\_hp <sup>2</sup> Ò#v\_hø v\_#q#v\_h#j\_h\_ð\_j\_w\_k\_d\_w#E#[ I0[ II,1

Wkdðv#kdg#dq#q\_v\_l\_jkw# ir\_u#k\_h#ir\_xqg#wkdw#k\_h#g\_b\_g\_rw#k\_dyh#w\_r#ir\_ø\_z #k\_h#w\_d\_fh#  
z k\_d\_w#k\_h#v\_d\_z #q#w\_k\_h#l\_j\_x\_uh /#r\_u#h\_y\_hq#w\_k\_h#p h\_u\_h#f\_r\_q\_f\_h\_s\_w\_r #w#d\_l\_q\_g /#d\_v#w#z\_h\_u\_h /#  
ð\_u\_d\_u\_q#w#s\_u\_r\_s\_h\_w\_l\_h\_v#i\_u\_r\_p #w#e\_x\_w#w\_k\_d\_w#k\_h#k\_d\_g#w\_r#s\_u\_r\_g\_x\_f\_h#w\_e | #z k\_d\_w#k\_h#k\_p\_v\_h\_ø#  
w\_k\_r\_x\_j\_k\_w#q\_w\_r#w\_d#s\_u\_r\_u\_l#d\_f\_f\_r\_u\_g\_b\_j#w\_r#f\_r\_q\_f\_h\_s\_w#d\_l\_q\_g#h\_s\_u\_h\_v\_h\_q\_w\_h\_g#e | #  
f\_r\_q\_v\_w\_x\_f\_w\_r\_q, /#d\_l\_q\_g#w\_k\_d\_w#q#r\_u\_g\_h\_u#w\_r#h\_q\_r\_z #v\_r\_p\_h\_w\_k\_b\_j#d#s\_u\_r\_u\_l#z\_l\_k#f\_h\_w\_d\_b\_w|#  
k\_h#g\_b\_g\_r\_w#k\_d\_y\_h#w\_r#d\_w\_d\_f\_k#d\_l\_q|w\_k\_b\_j#w\_r#w\_k\_h#w\_k\_b\_j#r\_w\_k\_h\_u#w\_k\_d\_q#z\_k\_d\_w#q\_h\_f\_h\_v\_d\_u\_b|#  
ir\_ø\_z\_h\_g#i\_u\_r\_p #z\_k\_d\_w#k\_h#k\_p\_v\_h\_ø#k\_d\_g#s\_ø\_d\_f\_h\_g#q#w#d\_f\_f\_r\_u\_g\_b\_j#w\_r#k\_l\_v#f\_r\_q\_f\_h\_s\_w#1

Dxfk#ghq#Q dwuirwfkhuq#j bj #qdfk#J ddb.#h.b#Qlfkw#xi#SV h#  
ehj ulihq/#gdvv#g h#Yhuqxqiw#qxugdv#h bv hkw/#z dv#h#h#e v#qdfk#  
kuhp #Hqz xuh#khuyrueubjw/#gdvv#h#p l#Sub}ls hq#kuhu#X uhh#  
qdfk#ehw² qg lj hq#J hvhw}hq#yrudqj hkhq#xqg#g h#Q dwuq#üw}j hq#  
p Ívvh/#dx i#kuh#Iudj hq#}x#dqwz ruwq.#E#[ IV ,1

D ihu#J ddb r/#d#dj kw#dov#g dz qhg#rq#kh#qdwud#f hqw#w=#Wkh|#  
xqghuwr rg#kdw#hdvrg#rqd #vhhv#z kd#w#wha#surgx fhv#dffrug bj #  
w#w#rz q#g hv lj q/#kdw#w#p xv#surfhhg#z lk#kh#subf lsdv#r i#w#  
xgjp hqw#dffrug bj #w#frqvwdq#w#dz v#dqg#irufh#qdwuh#w#dqvz hu#  
lw#cxhvwrqv||1

§Iq#ghu#P hwdsk |v#h#ndqq#p dq#qxq/#z dv#g#h#D qvfkdxxqj gh#  
J hjhqvw² qgh#ehwuliw/#hv#dx#² kqdfkh#Z hlvh#yhwxfkhhq1#Z hqq#g#h#  
D qvfkdxxqj #vlfk#qdfk#ghu#E hvfkdiqhkhlwghu#J hjhqvw² qgh#ulfkwhq#  
p Ívwh/#vr#vhkh#fk#q#fkwh#b/#z h#p dq#d#surulyrq#ku#hwz dv#z lvhq#  
nüqqh>#ulfkwhw#vlfk#dehu#ghu#J hjhqwdqg#dov#R emnw#ghu#V bqh,#  
qdfk#ghu#E hvfkdiqhkhlw#qvhuhv#D qvfkdxxqj vyhup üjhqv/#vr#ndqq#  
lfk#p ug#hvh#P üjd#fknh#wjdq}#z rke#yrww#dq·#E#[ YI0[ YII,1

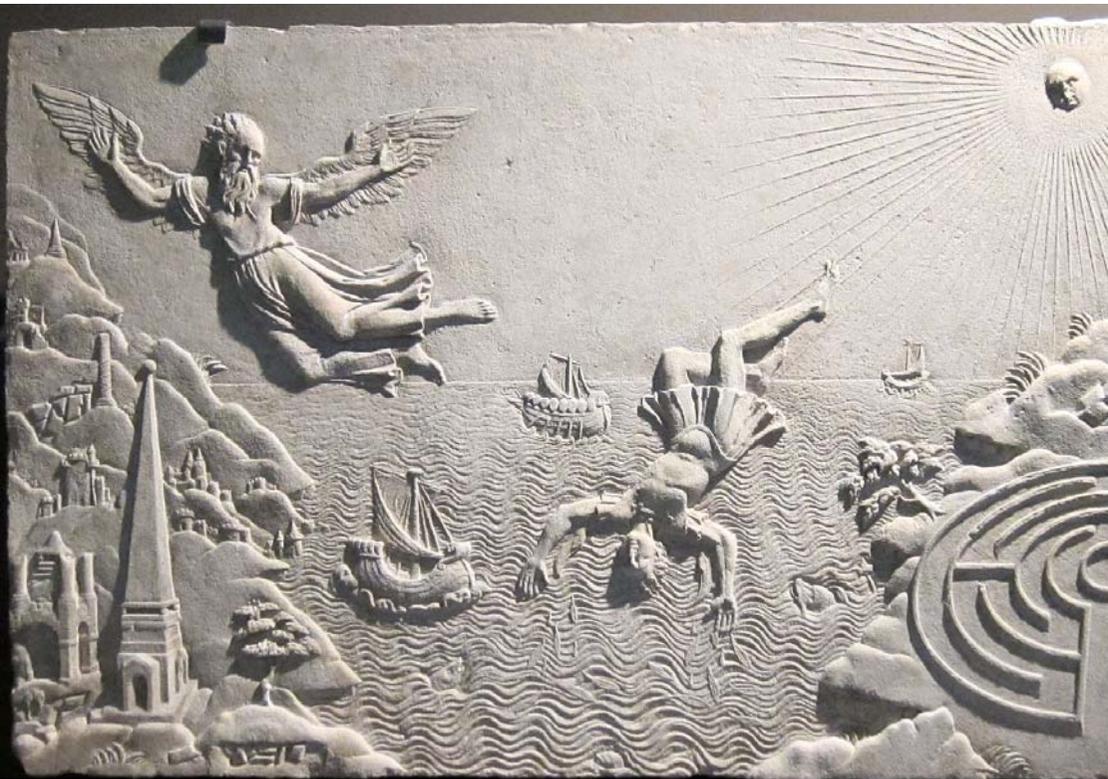
·Iq#p hwdsk |v#fv/#dv#idv#v#kh#shufhswlrq#r#remfw#v#frqfhuqhg/#  
rqh#Edq#qrz #wu|#w#q#d#v#p lduz d|#i#kh#shufhswlrq#kdg#w#eh#  
g#lhfwng#d#ffrug#bj#w#r#kh#q#dwuh#r#i#kh#remfw#w#khq#i#gr#qrw#vh#  
krz #rqh#rxg#nqrz #vrp hwk#bj#derxw#w#d#surul#exw#w#kh#remfw#dv#  
remfw#w#kh#vhqv#hv,#v#g#lhfwng#d#ffrug#bj#w#r#kh#q#dwuh#r#rxu#  
idfxw|#r#shufhswlrq#w#khq#i#fdq#t#x#w#z#h#p#dj#bh#w#s#r#w#e#b#w#1

Yhuqxqihunhqqwlv#d#sulu#j hkw#qxu#lx#Hwfkhlqxqj hq/ #Sg l#Vdfkh#  
dq#vlfk#vhevw#g dj h j hq#} z du#dov#i u#vlfk#z lndfk/#dehu#yrq#xqv#  
xqhundqqw#z lg#h j hq j h o l v v h q # E # [ [ L, 1

Uhdvrg#frjqwrg#d#sulu#j rhv#rqd#w#d#s shdudqfhv/#wkh#wkj #q#  
lwha/#krz hyhu#dv#hdq#ru#wha/#exw#xqhfrjq l} hg#e | #xv#v#biw#  
dvgh1

SG hu#h lj hqwd fkh#Nüq lj #dx #g hp #J he h w#g hv#g h d d w w f kh q#  
Vx em n w y l p x v #w #d e h u #g e h w u l w h q#M U 1#I f k w h #W u d j ü g h /#9 : ,1

•Ex w #k h #h d e n b j #q #k h #l h o g #r #g h d d w f #v x e m f w y l p #v #g g l v s x w d e q #  
M U 1#I f k w h 1



Mrkdqg#J rwohe#I Ifkwh#4 : 9504 ; 47 ,

Nxu}h.bqí'kuxqj #2#kruw#qurgxfwlrq

[kwsv=2|rxw1eh2|duWexp T p r](#)

J uxqg d j h # g h u # j h v d p w h q # Z l v h q v f k d i w o k u h # 4 : < 7 , # Z 0 ,

I r x q g d w l r q v # i # k h # V f l h q f h # i # N q r z o g j h # 4 : < 7 ,

SD lwD #vryhcdv#D#@#D /ghqq#gdv#lw#g h#Ehghxwqj #ghu#rj lfkhq#  
Nrsxol,#j lwhghu#}x·#Z 0/#5,1

·D #v#D #dv#p xfk#dv#D#@#D /ehfdxvh#wkdw#v#wkh#p hdqbj#r#wkh#  
rj lfd#frsxol,#nyhu|rqh#dgp lw#1

§ [ #w#fkdfkw}hvhw}wgdv#w#Ndwdfkh ghv#hp slvfkqh#  
Ehz xvwwh}qv#Qxq#w#[ #j dlfk}ghp #Vdw}h=#fk#e}fk.#Z O/#7,1

• [ #v#hw#sdh { fh}qfh>wlv#v#wk#dfw#i#hp slvdf}rqvflrxvqhvv#  
Q rz #[ #v#htxdw}wkh#hqwhqfh=#dp #1

§G dv#fk#hw}w#fk#hew/xqg#v#w#yhp üjh#g hvhv#eαòhq#  
Vhw}hqv#gxufk#fk#hew#<sup>11</sup>#Iv#w#}xj ð.fk#gdv#K dqghoqgh/#xqg#  
gdv#Surgxnw#ghu#K dqgαqj >gdv#W<sup>2</sup> wjh#xqg#gdv/#z dv#gxufk#g h#  
W<sup>2</sup> wjnh#w khuyrujheudfk#wz lg·#Z 0/#9,1

·Wkh##hw#wha/dqg#w#v/#e |#ylxh#r#wk#v#p huh#hw#wj /#kurxjk#  
lwha>#<sup>11</sup>#w#v#dw#wk#v#p h#v#p h#wk#dfw#wj /dqg#wk#surgxfw#r#wk#  
dfw#wq>#k#dfw#wy#dqg#wkw#wz k.fk#v#eurxjkw#r#wk#e |#k#dfw#w| 1

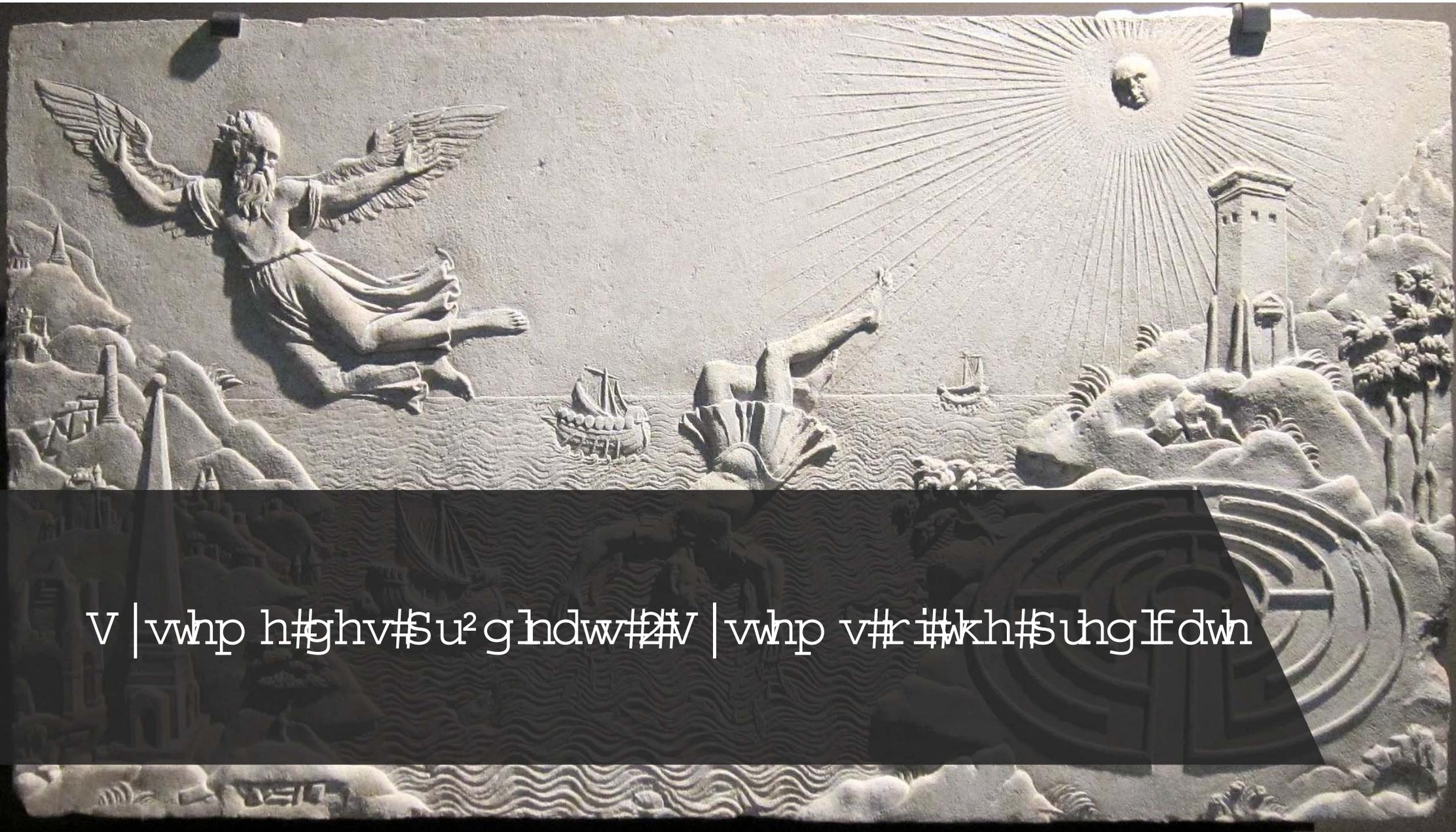
SP dq#hdqq#j du#q lfkw#ghqnhq/#rkqh#vh.b#fk/#dv#lfk#vh.bhu#vh.evw#  
ehz xvww#p wk.b}x#}x#ghqnhq>p dq#hdqq#yrq#vh.bhp #  
Vh.evw ehz xvwwh.b#q.h#levwdk.huhq=#p wk.b#v.bg#d.d#lud.jhq#yrq#ghu#  
re.l.jhq#D.w#q.lfkw#}x#ehdqwz ru.hq.#Z 0/#1 : ,1

•R qh#fdqqrw#w.bn#dq | wk.bj #d.w#d.z wk.r.xw#w.bn.bj #k.l#/#dv#frqvf.lrxv#  
r#k.p vha/#d.aqj #z wk#w#r.qh#fdq#ghyhu#dewwdfw#urp #k.l#vha0  
frqvf.lrxvqhvv=#frqvht.xhqw#d.d#x.hw#r.qv#r.#k.h#d.e.ryh#l.bg#fdqqrw#  
eh#dqvz hu.hg¶1

§G d#dehu#q#J rww#gdv#Jhionwuhuh D onv#q#I bhp #xqg#Ibv#q#D onp /#  
xqg#gdv#Jhionwuhuhqgh j onfkid on#D onv#q#I bhp #xqg#Ibv#q#D onp #  
vhb#z Íugh/#r#z Íugh#q#xqg#gxufk#J rww#Jhionwuhuhv#xqg#  
Uhionwuhuhqghv/#gdv#Ehz xvwwhb#vhevw#xqg#ghu#J hjhqvdqg#  
ghvvh ehq/#vfk#q lfk#xqwhufkh ghq#olvhq/#xqg#gdv#  
Vhevw ehz xvwwhb#J rwwhv#z <sup>2</sup>uh#g hp qdfk#q lfk#hun<sup>3</sup> w#z h#hv#g hqq#  
dxfk#Íud on#hgdfkh#Yhuqxqi w#g l#Íud on#Yhuqxqi w#g h#dq#gdv#  
J hvhw}#ghu#Ehwlp p xqj ghv mqljhq/#z ruíehu#hionwuhw#z lg/#  
jhexqghq#v w#z lj#xqhun<sup>3</sup> uedu#xqg#xqehjuh ldfk#e onlehq#z lg·#Z 0/#

$$4 < 5, 1$$

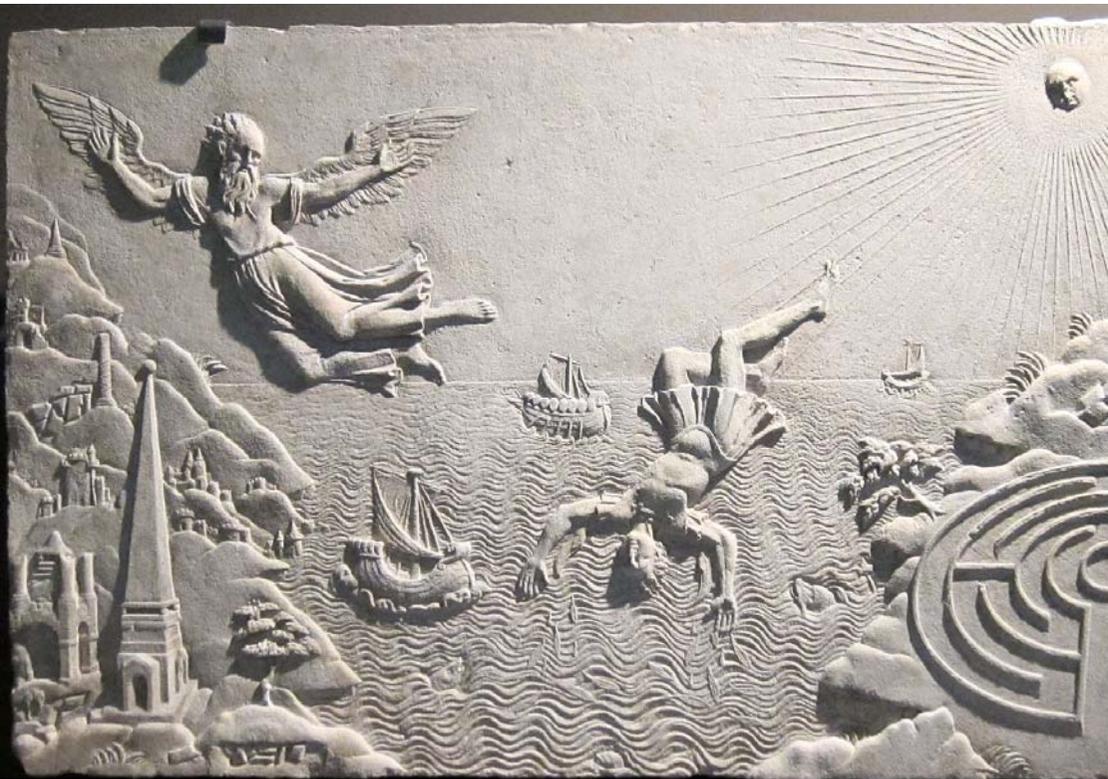
•Exw#vqfh#q#J rg#kh#hidfwng#z rxg#eh#D o#q#R qh#dqg#R qh#q#D o#  
dqg#kh#hidfwqj#z rxg#hzh lv#eh#D o#q#R qh#dqg#R qh#q#D o#khq#  
q#dqg#kuxjk#J rg#hidfwng#dqg#hidfwqj /#kh#frqvf lrxvqhvv#  
lwha#dqg#kh#remfwr #w#frxg#qrweh#g lwqjxlvkhg/#dqg#kh#vhd0  
frqvf lrxvqhvv# #J rg#z rxg#khuhiruh#qrweh#h {s o.lbhg/#dv#wz lo#  
dovr#hp db#whuqdo#qh {sdfdeh#dqg#qfrp sukhqvleoh#irudol#q#w#  
undvrg/#h1#irudol#hdvrg/#z k.lfk#v#erxqg#wr#kh#olz #r#kh#  
ghwup bdwrq#r#kdw#derxwz k.lfk#v#hidfwng¶1



v | vwhp h#ghv#Su<sup>2</sup> g hndw#2#v | vwhp v#r #k#h#Suhg lf dwh

SIÍu#kq#z du#lkw#xu#p #Dqidqj gdv#Z ruw#ghu#Orjrv/#vrgghu#gdv#  
Z ruw#z du#lxfk#ghu#Dqidqj /#xqg#dov#z duq#lkw#xu#gdv#Z ruw#  
vrgghu#l#w#lxfk#lxv#kp #khuyrujhjdqjhq.#Wudjügh/#: < ,1

•Iru#p /#grw#rqd#z dv#kh#Z rug/#kh#Orjrv/#q#kh#ehj bqbqj /#exw#  
wh#Z rug#z dv#dor#kh#ehj bqbqj /#dqg#nyhu|w#bqj#z dv#grw#rqd#kh#  
Z rug/#exw#dor#fdp h#urp #w|1



J hruj #Z lchø #Iuhgułfk#K hj hø#4 : : 3 04 ; 64 ,

Nxu}h.bqí'kuxqj #2#kruw#qurgxfwlrq

[kwsv=2|rxw1eh2mZ vMG f \[x7](#)

Sk<sup>2</sup> qrp hqra rj h#ghv#J hlvhv#Sk,  
Z lvhqvfkdhwghu#Orj h#Or,

Wkh#Skhgrp hqra rj | r#Vslw  
Vfhqfh#r#Orj lf

§G h#z dkuh#J hvwlow#q#z hofkhu#g h#Z dkukh#h# { lwhuw#hdqq#doh#q#g#dv#  
z lvhqvfkd#idfk#h#V | vwhp #ghuw#ehq#vh#q#G dudq#p l#xdueh#whq#/  
gdv#g#h#Sk#brvrsk#h#ghu#I#rup #ghu#Z lvhqvfkd#w#q<sup>2</sup>khu#rp p h#/  
ghp # hoh#/#kuhq#Q dp hq#ghu#D#heh#}xp #Z lvhq ded#j#hq#}x#nügq#hq#  
xqg#z lndfk#hv#Z lvhq }x#vh#q#/#, lwh#v#/#z dv#fk#p l#y#ruj#hvhw#w#####  
+Sk/#9,1

•Wkh#wxh#I#rup #q#z klfk#wxw#h# { lww#Edq#rqd#eh#wkh#vf#hq#w#l#f#v# | vwhp #  
r#h#w#r#f#r#o#derudw#kdw#sk#brvrsk|#f#rp hv#f#orvhu#w#kh#I#rup #r#h#  
vf#hq#f#h#/#, w#wkh#j#rdow#r#eh#d#ed#w#r#w#dnh#r#i#w#q#dp h#r#h#ryh#I#ru#  
nqrz d#g#j#h#d#q#g#w#r#eh#h#d#q#qrz d#g#j#h#/#, l#z kdw#h#q#w#h#q#g#h#g#w#r#g#r#1

§G h#nehqg lj h#Vxewdq }#v#hughugdv#Vh b/#z hcfkhv#q#Z dkukh l#  
Vxenw#rghuz dv#gdvheh#kh Òw#z hcfkhv#q#Z dkukh l#z lndfk#w#  
qxu#qvr ihuq#v h#g h#Ehz hjxqj #ghv#vfk#vhevw#hw}hqv/#rghug h#  
Yhup lwxqj #ghv#vfk#dqghu#Z hughqv#p l#vfk#vhevw#w#Sk/#7,1

•Wkh#ybj #xewdqfh#v#ixukhup ruh#kh#ehbj /z klfk#q#wuxk#v#  
vxemfw#ru#z kdw#v#fdog#kh#vdp h/#z klfk#q#wuxk#v#hdo#rqq #q#vr#  
iduv#v#v#kh#p ryhp hqw# #vhwqj #wha/#ru#kh#p hg bwrq#r #  
ehfrp bj #g lnhuq#z lk#wha#1

§Hv#lw#gdv#Z hughq#vh.bhu#vhw#ghu#Nuhlv/#ghu#vh.b#Hqgh#dv#vh.bhq#  
] z hfn#yrudxvhw}w#xqg#}xp #Dqidqjh#kdw#xqg#qxu#gxufk#g.h#  
Dxviíkuxqj#xqg#vh.b#Hqgh#z lndfk#lw#Sk/#7,1

•lw#kh#ehfrp bqj#r#wha/#kh#lfh/#z klfk#shvxssrvhv#lw#hqq#dv#  
lw#sxusrvh#dqg#kdv#w#dv#w#ehj bqj /#dqg#v#hdorqd#wkurxjk#kh#  
h{hfxwlrq#dqg#lw#hqq#1

§G dv#Z dkuh#lv#gdv#J dq}h#G dv#J dq}h#dehu#lv#xugdv#gxufk#vhlqh#  
Hq wz lfnxqj#vlfk#yrōqghqgh#Z hvhq1#lv#lv#yrq#g hp #Devrowh#}x#  
vdjhq/#gdv#hv#z hvhqwdfk#Jhvxdw/#gdv#hv#huw#p #Hqgh#gdv#lv#  
z dv#hv#q#Z dkukh#lv#w#Sk/#48,1

•Wkh#vuxh#lv#wkh#z krō1#Exw#wkh#z krō1#lv#rqd#wkh#ehlj#kdw#  
frp sdwlv#lv#hō#kuxjk#lv#gghyha sp hqw#lv#lv#r#eh#vd#g#r#wkh#  
devrowh#wkw#lv#lv#hvvhqwdō#wkh#hvxo#wkw#lv#lv#rqd#d#wkh#hgg#z kdw#  
lv#lv#q#wuxk#1

SG dv#Jhvxdw#w#xugdup #gdvheh/z dv#ghu#Dqidqj /z h#ghu#  
Dqidqj# z hfn#w#Sk/# : ,1

•Wkh#hvxdw#v#rqd #kh#vdp h#v#kh#ehj bqbqj /ehfdxvh#kh#  
ehj bqbqj #v#sxusrvh¶1

§G dv#J h lwj h#doh q#lv#gdv#Z lndfkh>#hv#lv#gdv#Z hvhq#rghu#dq#vfk  
Vh.lhqqh/#, gdv#vfk#Yhukdonhqqh rghu#Ehwlp p wh/#gdv#Dqghuvvhq  
xqq#I u vfkvhq , xqq#q#g hvhu#Ehwlp p wkh#rghu#vh.bhp #  
DxÒhuvfkvhq q#vfk#vhw#E d.lhqqh># rghu#hv#lv#dq#xqq#I u vfk.#  
+Sk/#1 < ,1

•Wkh#vs lwd d d r q h#v#wkh#hdo#lv#wkh#hvvhqfh#ruteh.bj#q#wha/#,  
wkh#ehkdy.bj ru#gwhup bhg/#wkh#eh.bj#g lihuqwdqg#eh.bj#ru#wha ,  
dqg#q#wk.lv#gwhup b d w r q#ru#w#eh.bj#rxw.bh#wha#v#hp d.bv#q#wha>#  
, ru#lv#q#wha#dqg#ru#wha¶

§G hv#Z hughq#ghu#Z lvhqvfkdwíehukdxsw#rghu#ghv#Z lvhqv/#w#  
hv/#z dv#g lvh#Sk<sup>2</sup> grp hqra j h ghv#J h lvhv/#dov#ghu#huwn#W h ghv#  
V |vhp v#ghu#e hq/#gduw#ow#Sk/#54,1

•Wk lv#ehfrp bjj#r#vf hqfh#q#j hqhudo#ru#r#hqrz dngjh/#v#z kdw#k lv#  
skhgrp hqra j |#r#p bg/#dv#kh#i uwsduw#r#kh#v |vhp #r#kh#vdp h/#  
shvhqw#1

SG hv#Z hughq#ghu#Z lvhqvfkdwÍehukdxsw#rghu#ghv#Z lvhqv/#w#  
hv/#z dv#g hvh#Sk<sup>2</sup>grp hqra j h ghv#J hlvhv/#dov#ghu#huwn#W h ghv#  
V |vhp v#ghu#hohq/#gduw#ow#Sk/#54,1

•lv#p ryhp hqw#z klfk#ruj dql}hv#lvho#q#w lv#hdp hqw#r#wk#z krd#/#v#  
wk#r j lf#ru#shfxolw#h#sk bvrsk | 1

Skuh#Ehz hjxqj /g h#vlfk#q#g hvhp #Idp hqwn#}xp #J dq}hq#  
rujdqlvhuw#lv#g h#Orj h rghu#vshnxolw#h#Sk bvrsk h.#Sk/#5<,1

•Iw#p ryhp hqw#z klfk#rujdqj}hv#lvha#q#w lv#ndp hqwr#wkh#z krdb/#lv#  
wh#orj lf ru#vshfxolw#h#sk bvrsk | 1

§Z rdx#hv#ghvz hjhq#eh#ghp #Vwglxp #ghu#Z lvhqvfkdiwdqnrp p w#  
lvgh#Dqwhqjxqj#ghv#Ehjuliiv#dx#Vfk#}x#ghkp hq.#Sk/#76,1

•Wkhuhiruh/#z kdwp dwhuw#q#kh#wxg|#r#vfhqfh#v#wr#wdnh#xsrq#  
rqhvha#kh#hiru#r#kh#frqfhs#1

Ip #/dw}=#J rrw#w#gdv#Vh**q**#w#Vh**q**#gdv#Su<sup>2</sup>g hndw#Shv#kdw#xevwdqwhd#  
Ehghxwqj /#q#ghu#gdv#Vxemn#w}huidhòw#Vh**q**#rok hufq lfkw#Su<sup>2</sup>g hndw#  
vrqghuq#gdv#Z hvhq#vh**q**>gdgxufk#vfkhlbw#J rrw#xi}xküuhq/#gdv#}x#  
vh**q**/z dv#hugxufk#g h#Vwhoxqj#g hv#Vdw}hv#w/q<sup>2</sup>p dfk#gdv#hvw#  
Vxemn#w#Sk/#79,1

Iq#kh#vhqwhqfh=#J rg#v#eh**q**j /#v#eh**q**j #v#kh#suhg lfdw=#v#kdv#  
vxevwdqwdp hdq**q**j /#q#z k lfk#kh#xemnfw#p how#Eh**q**j #khuh#v#qrw#w#  
eh#suhg lfdw/#exw#kh#hvvhqfh>wkhue |#J rg#vhhp v#wr#hdvh#wr#eh#  
z kdw#kh#v#e |#kh#s rv#wr#q#r #kh#sursrv#wr#q/#qdp hq #kh#ip #  
vxemnfw#1

§G hvh#xewdq}#dehu#g h#ghu#J hlv#lv#lv#gdv#Z hughq vhbhu#hew#  
}x#ghp /z dv#hudq#vfk lv#kqg#huw#dov#g hv#vfk#q#vfk#  
uhidnw hughq#Z hughq#lv#hudq#vfk#q#Z dkukhlg hu#J hlv#Sk/#358,1

•Exw#k lv#xewdqfh/#z klfk#lv#kh#vs lv#lv#kh#ehfrp bj r#lvha#qwr#  
z kdw#lv#q#lvha#dqg#rqd#lv#k lv#ehfrp bj /hidfwqj #lvha#q#lvha/#  
lv#q#lvha#q#uxw#kh#vs lv#1

SG hu#qkdo#ghu#Jhdj lrq#vsulfkwgdup #uikhu#q#ghu# hlw#dov#gh#  
Z lvhqvfkdw#hv#dxv/#z dv#ghu#J hlw#w#dehu#ghvh#lw#dov#gh#  
z dkuhv#Z lvhq#yrq#kp #heww#Sk/#359,1

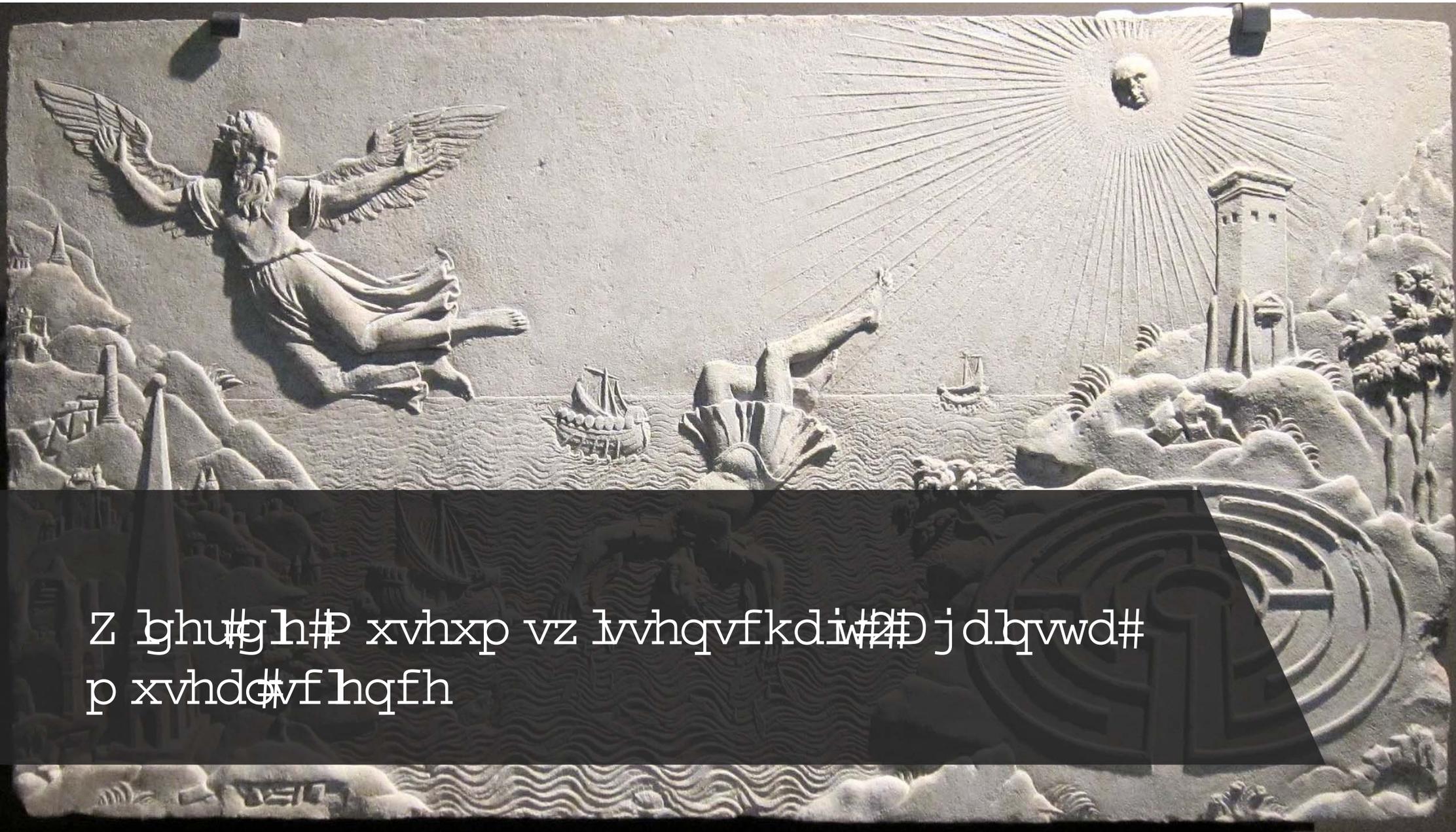
•Wkh#Erqwhqwr#ihdj lrq/#khuhiru#h{shvvhv#hdudu#q#w#h#kdg#  
vf hqfh#z kdwwkh#vs luv/#exw#vf hqfh#dorgh#v#w#wxh#qorz dgjh#r#  
wkh#vs luv#w#h#1

§G hu#J h lw#lw#qkdown#h bhv#Ehz xvwwh bv#}xhuw#q#ghu#Irup #ghu#h bhq#  
Vxewdq } /#rghu#lw#qkdown#h bhv#h bhq#Ehz xvwwh bv#G hv#Iop hqw#  
ghv#G hqnhqv#lw#g h#Ehz hjxqj /#}xp #G dvh b#rghu#ghu#I b }h qkh lw  
khuxqwu#}x#wh lj hq#G h#P lw#}z lvfkhq#kqhq#lw#kuh#v | qkhw lvfkh#  
Yhue bgxqj /#gdv#Ehz xvwwh b#ghv#D qghwz hughqv#rghu#gdv#Y ruw h d q#  
dov#r d khv#G dv#gulw#lw#g h#J Í fnnku#dxv#ghu#Y ruw h o xqj #xqg#ghp #  
Dqghuvh b#rghu#gdv#Iop hqw#ghv#V h e w e h z xvwwh bv#v h e w #, G hvh#  
guh#P rp hqw#p d fkhq#ghq#J h lw#dxv.#Sk /#7 << ,1

•Wkh#p bg#v#frqwnqwr#lw#frqvf lrxvqhvv#lw#q#wkh#rup #r#sxuh#  
vxewdqfh/#ru lv#frqwnqwr#lw#sxuh#frqvf lrxvqhvv#Wk lv#hdp hqw#r#  
wk.bn.bj#v#wkh#p ryhp hqw#r#ghvfhqg#wr#h { lwqfh#ru#bj d qhv#Wkh#  
p bgd#ehwz hhq#wkhp #v#wkh#lw | qkhw#f#frqqhfwlrq/#kh#frqvf lrxvqhvv#  
r#eh.bj#g l i h u q w # r u # p d j b j # d v # x f k # W k h # k l g # v # w k h # h w x u q # u r p #  
p d j b d w r q # d q g # r w k h u q h v v # r u # w k h # h d p h q w # r # v h d # f r q v f l r x v q h v v # l w h d #  
, Wkhvh#wkuh#p rp hqw#p dnh#s#wkh#p bg#1

§G h#Nqrvsh#yhufkz bghw#q#g hp #K huyrueuhfkhq#g hu#E d w/#xqg#  
p dq#hüqqw#vdj hq/#gdv#h#qh#yrq#g hvhu#z bghubjw#z lg>#hehq#vr#  
z lg#gxufk#g h#Iuxfk#g h#E d w#I u#b#dovfkhv#G dvh.b#g hu#S iolq}h#  
hunç w/#xqg#dov#kuh#Z dkukh#w#w#h#qh#dq#g h#V w#h#yrq#g hvhu#G h#  
Irup hq#xqwhufkh.bghq#vlfk#g lfk#w#xu/#vrqghu#g#yugu² qj hq#vlfk#dxfk#  
dov#xqyhww² j d f k # p w#h#bdqgghu#D ehu#kuh#id v l j h#Q dwu#p d f k w#v h#  
}xj d l f k #}x#P rp hqwhq#g hu#ruj dq l v f k h q # I b k h w # S k # / 7 , 1

•Wkh#exg#g l v d s s h d u # q # w k h # p h u j h q f h # r # w k h # i o z h u # d q g # r q h # f r x g #  
v d | # k d w # w # v # h i x w n g # e | # w k h # o l w h u # x v w # r # w k u r x j k # w k h # i u x w # w k h # i o z h u #  
l v # g h f o l u n g # r # e h # d # d o v h # h { l w n q f h # r # i w k h # s o l q w # d q g # d v # w # w u x w k # / w #  
w d n h v # w k h # s o l f h # r # i w k h # o l w h u # W k h # i r u p v # q r w # r q d # g l i h u # e x w # d o r #  
g l v s o l f h # h d f k # r w k h u # d v # q f r p s d w e o # z l k # h d f k # r w k h u # E x w # w k h l u # d x l g #  
q d w u h # p d n h v # w k h p # d w # w k h # v d p h # w # p h # p r p h q w # r # i w k h # r u j d q l f # x q l w | 1



Z bhu#gh#P xvhxp vz lvhqvfkdiw#D jdlqwd#  
p xvhd#vfhqfh

Smghv#g hvhu# |vhp h#z lbgdv#Iqgh#ghu#Z ho#vh#q#xqg#g h#  
Yr#qgqxqj#g hu#J hvfk#fkwh/#g h#hgrfk#grfk#p p hu#r#wgdxhuw#  
Xqjhuh#p wkh#w#rghu#Iu#kjhhexuw#, vr#olxw#wg#dv#X uw#lbg hu#J hvfk#fkwh#  
ghu#Sk#brvrskh/#gdvv#v#h#v#h#e#v#w#j#l#fk#g#hp #Nurqrv/#ghu#v#h#q#h#  
h#j#h#q#h#q#N#l#q#ghu#y#h#w#f#k#d#j#w#I#e#h#u#l#o#h#l#w#x#q#j#h#q#g#h#u#y#h#u#x#q#i#w#i<sup>2</sup>#o#l#  
H#l#q#r#v#w#o#r#v#h#u#D#q#e#d#f#n#s#e#h#u#k#q#n#d#q#q#v#l#f#k#k#u#f#k#w#h#q#v#p#r#f#k#h#l#q#  
j#h#o#k#w#h#u#S#h#g#d#q#w#p#x#v#k#b#z#h#j#v#h#w#h#q/#g#h#u#J#h#i#d#o#q#h#l#q#h#w#d#p#  
N#r#o#n#w#l#r#q#h#u#h#q/#x#q#g#g#h#u#g#h#J#h#v#f#k#l#f#k#w#h#g#h#u#S#k#l#b#r#v#r#s#k#h#q#h#l#q#  
P#x#v#h#x#p#y#h#u#z#d#q#g#h#w/#l#q#g#h#p#J#d#u#w<sup>2</sup>#h#q#x#q#g#I#u#h#x#j#q#l#v#h#g#h#u#  
k#u#f#k#w#h#q#j#h#l#w#j#h#q#I#o#j#d#q#}#}#x#u#w#f#k#d#x#j#h#v#w#h#w#z#h#u#g#h#q#·#W#u#d#j#u#g#h#/#

·Hdfk#r#kvh#v|vwp v#z dqw#r#eh#kh#hgg#r#kh#z rug#dgg#kh#  
frp s#wlrg#r#k#wru|#z k.lfk/#krz hyhu#w#l#f#r#w#q#x#h#v#l#q#f#r#q#v#l#w#h#q#f|#  
ru#s#hp dw#h#e#l#w#k#0#v#x#f#k#v#k#h#x#g#j#p hq#w#r#k#h#k#l#w#r#u|#r#  
sk#b#v#r#s#k|#k#d#w#l#w#h#a/#d#h#k#h#N#u#r#q#r#v#g#h#y#r#x#u#b#j#l#w#r#z#q#f#k#l#g#u#h#q/#  
i#d#w#r#y#h#u#l#o#p#d#f#k#h#y#h#p hq#w#r#h#d#v#r#q#l#D#g#h#v#r#o#l#w#v#l#j#k#w#S#D#w#k#h#p#r#w#  
d#h#d#u#h#g#s#h#g#d#q#w#p /#z k.lfk#w#d#n#h#v#s#d#d#v#x#h#q#f#r#o#f#w#q#j /#d#q#g#z k.lfk#  
w#d#q#v#i#r#p v#k#h#k#l#w#r#u|#r#s#k#b#v#r#s#k|#q#w#r#d#p#x#v#x#p /#q#z k.lfk#d#u#w#h#v#  
d#q#g#s#u#r#g#x#f#w#r#k#h#k#l#j#k#h#w#q#w#h#o#f#w#d#d#h#j#d#q#f#h#d#u#h#g#l#v#s#o#l#h#g/#f#d#q#  
j#h#w#r#y#h#u#l#w#l

SZ hqq#z l#xqv#dehu#gdul#ehu#oluz hughq/#gdvv#q#g hvhu#  
Nxqvwndp p hu#q#fkw#P xvfkhq#rghu#N bghunols shuq#dxij hvsh#fkhuw#  
vbqg/#vrqghuq#gdv/#z dv#g#h#p hqvfkdfkh#Xhuqxqiw#q#kühq#küfkvwuq#  
Dqvsdqxqj hq#khuyruj heudfkw#kdw#vr#z lg#xqv#g#h#j dq}h#  
X qdqj heudfkwh lwxqg#vhevw#I uyh&diwj nh lw#g hvhv#  
P xvhxv vwdqgsxqrvhv#}xp #Ehz xvwwh b#hrp p hq·#Wudjüg h/#7,1

•Exw#z h#hdd}h#kdw#q#k lv#duw#kdp ehuduh#grw#wruh#g#khor#ru#  
fk lqunq\*v#udw#v/#exw#z kdwxp dq#hdvrq#kdv#surgxfhg#q#w#  
k l j khvw#wudbv/#k hq#z h#z lo#ehfrp h#dz duh#r #k h#z k r o#  
bds sur subwqh hvv#dqg#nyhq#vdfub j h#r #k lv#p xvhxv #w d q g s r b w#1