

# ( [ SORUDMRQ RQ 7KH 3 V FKRORJ LFDOO HFKDQLVP RI O LQG XQHW O HGLVMRQ

<LQR) HL

3V FKRORJ LFDOO HFKDQLV \$ GG&RXQHQQ & HQMU 6RXWZ HWVLDNRQJ 8 QYHUVW & KHQJX & KLOD

\$EVMDFW : LWK VWH DFFXP XQHW RQ RI VRFDO XQG XUVDOGLOJ DOG SUDWFDQ H SHUHQFH RI P LQG XQHW  
P HGLVMRQ P LQG XQHW P HGLVMRQ KD/ EHQDFH SWG DOG DSSOHGEI P RUH SHRSOH LQ SUDWFDQ H VMDNRQ/  
O LQG XQHW P HGLVMRQ KD/ EFRP HRQH RI VWHLP SRUDQ VWH DUK VRSLEV VRCO ' XHVR VWH FXUHQ VWH DUK  
IRFXV EHLQ P RUH RQ VWH FRUHDNRQ UH DUK DOG K SRMHV GHVULNRQ RI LQXHQFLOJ IDFRLV RI  
P LQG XQHW P HGLVMRQ VWHU LV QW HP SLUFDQ UH DUK RQ VWH P HFKDQLVP H SORUDMRQ RI P LQG XQHW  
P HGLVMRQ ) XUMHU VXP DJJ H VWH H LVWQJ UHQYDQ VWH DUK UH XOV DOG P HMRG/ DOG H SORU VWH  
SX FKRORJ LFDOO P HFKDQLVP RI P LQG XQHW P HGLVMRQ IURP LW RULILQ/ FRQF SW DOG GHYDOSP HQV  
SURYLQJQ FDI DOG VWH RUH WFDQ XSRUWRU XEVHTXHQ V P SLUFDQ UH DUK RQ P HFKDQLVP \$ QWJHQP EHUR  
UH DUK LV KDYH IRXGG VMD P LQG XQHW P HGLVMRQ KD/ D SRUWYHU XQHW H I HVRQ QH J D YH HP RNRQ/ LQ  
YDURV/ FRQJ W DOG VWH FRQF SW RI P LQG UHQMG VR %XGGKLP DOG = HQ LQ P LQG XQHW P HGLVMRQ KD/  
VP LQUMVH Z LWK VWH VHQ FRQF SW WGHG LQ : HVMQ SX FKRORJ & RUHFQ XQG XUVDOG VWH FRP SOJ LW RI VWH  
GHYDOSP HQV RI P LQG XQHW P HGLVMRQ JUDS FRUH FRQF SW LQ XUMHU P SLUFDQ SORUDMRQ DOG UH DUK RQ  
VHSX FKRORJ LFDOO P HFKDQLVP RI P LQG XQHW P HGLVMRQ DOG XQ XMDJ HQZ VFKORJLHV VRFUHM P RUH  
SRMELQVH

## , QMRGXFMRQ

O HGLVMRQ LV RHWQ DWRFLDNG Z LWK VWH FRQF SW RI  
P LQG XQHW LQ DFDG P LF UH DUK ERK GRP HMFDOO DOG  
LQMLQNRQDOO O HGLVMRQ LV D %XGGKLV VRFDEXQJ DOG  
VWH P RVLQ GH SW SDUVRI : HVMQ UH DUK RQ %XGGKLV  
P HGLVMRQ LV P LQG XQHW P HGLVMRQ > @\$ I VWH QMULQJ  
VHZ RUG RI : HVMQ SX FKRORJ P HGLVMRQ VFKQJTXV  
KDYH XQG HJRQ D SURRXGG VMD RUP DNRQ RI : HVMQ  
SX FKRORJ LFDOO VHDV HQV SUDJLP V IRUP LQJ D UHQYH  
FRP SOV V VMP DOG OFDQKUD FUMV VRI P LQG XQHW  
P HGLVMRQ VFKQJTXV > @\$ FFRUGQ VR EDQ LQ VWH SDV  
GHFDG VFRQV ERK GRP HMFDOO DOG LQMLQNRQDOO  
KDYH P DQMLQHG D VMDQHG IRFXV RQ P LQG XQHW  
P HGLVMRQ : LWK VWH GHSHQJ RI SHRSOH  
XQG XUVDOGLOJ RI P LQG XQHW P HGLVMRQ P LQG XQHW  
P HGLVMRQ DV DZ D VR UH XQHW HP RNRQ/ DOG XQG XUVDOG  
RQH VHQ LV EHLQ DSSOHG EI P RUH SHRSOH LQ YDURV  
VMDNRQ/ RI QH O RUH DOG P RUH VFRQV/ DUH DOR  
VMDQJ VR FRQF VWH DUK RQ P LQG XQHW P HGLVMRQ  
IURP YDURV DSHFW \$ FFRUGQ VR VMDWFDQ EDQ VH  
7 DEO VWH UH DUH GLIHUHQFH LQ VWH UH DUK IRFXV RQ  
P LQG XQHW P HGLVMRQ ERK GRP HMFDOO DOG  
LQMLQNRQDOO Z KLFK DOR UH QFW VWH GLIHUHQFH LQ VWH  
QYH RI UH DUK SURJUH DOG FXOMDO FRQJ WERK  
GRP HMFDOO DOG LQMLQNRQDOO > @

7 DEO & RP SUDWYH VEDQ RI P LQG XQHW UH DUK NH Z RUG  
D VFRP HDQG DEURDG > @

1R	) RUHQ		' RP HMF	
	. HZ RUG	) UHTXQF	. HZ RUG	) UHTXQF
	P LQG XQHW		P LQG XQHW V	
	P HGLVMRQ		P LQG XQHW V WDCQJ	
	G-SUHMQR		P LQG XQHW VEDHG VWHV UHGXFMRQ	
	0 %65		G-SUHMQR	
	VWHV UHGXFMRQ		DQ LHW	
	DQ LHW		TXDWR VHS	
	VWHV		P LQG XQHW VQYH	
	0 HQ DQD VV		XQGU JUDQDM	
	UDQRP IJ HG FRQURQG WDO		TXDWR QH	
	TXDWR QH		EUDW FDURCP D	

O XQVSH VMDHV KDYH VFRZQ VMDW P LQG XQHW  
P HGLVMRQ KDV D VJQLFDQV LP SDFW RQ HP RNRQDO  
DGVWR HQV DOG VHQ DZ DUHQW DOG KDV SUDWFDQ  
VJQLFDQH IRU GLIHUHQVSRXQNRQ/ VFK DV FQFHU  
SDWQW DOG KLVWUJFDO EDFNURXGG/ VFK DV VWH

SDQGPIF > @ & QW\ LQJ VHI FRUH FRCF-SW DQG  
SX FRKBJLFDOPHFKDQVPV RI P LGG XQH-V P HGLVMDRQ  
FDQ EH-VWUJKHS HXWEDK D WHDV HQ/P RG-OFF-QMUG RQ  
P LGG XQH-V P HGLVMDRQ DQG I QJ LEO DQXVWR UHSRGG VR  
YUJRXV/SRSXDMRQ/DQG VLVMDRQ/

0 LGG XQH-V P HGLVMDRQ

=HQ%XGGKVP ZKFK LV UHSUHQMG E VHI FRKBJLFDOPHFKDQVPV  
IXLRQ RI , QGDDQ FXOMUH DQG & KQHM WDGWRQDFXOMUH  
FRQMLQ/DZ HDK RI SX FRKBJLFDOPHFKDQVPV 7KLV  
DOR LQFOXGH/ KXP DQVP DQG FRJQVYH EH-KDYLRUD  
VH-LS > @ : LVK VHI HJ SDQMRQ RI VHI LQOXH-QFH RI  
: HVMQ KXP DQVP : HVMQ SX FRKBJL KDV D VWRQJ  
LQMJHVVQ=HQ =HQ DOR IXUMHUFRRP ELQGHZ LVK : HVMQ  
SX FRKBJL DQGP DGHFVMDQ-HVMQFRQMEVMRQ/VR VHI  
Z HVMQ SX FRKBJL V VMP ) RUHJ DP SØH LVEHQDQV  
VR D FDMURJ RI UHQJ DMRQ WFKQTXH V LQ EH-KDYLRUD  
VH-LS DQG P HGLVMDRQ LV D JRRG HJ DP SØH RI  
LQMJUDMRQ > @

0 LGG XQH-V KDV EHQZ LGH FLUXDMG DV D SRSXDMRQ  
VMP LQ VHI SDWGHFDGH , WZ DV RUJLQDD GH LQGH E  
. DEDV=LQ - DV FXQYDQJ DZ DUHQH/E SXLSRVHXQD  
IRFXVQJ DMRQ RQ VHI SUHQVMDQG SHUHYLQJ VHI  
HJ SHUHQFHRI VHI SUHQVMP RP HQVZ LVFXVVMGJP HQV/> @  
0 LGG XQH-V WFKRBJL KDV D KJK ØM-HRI SDWVSDMRQ  
LQ SX FRKBJL DQG VHI VHI VH-LS DQG  
P LGG XQH-V FRJQVYH VH-LS DUH VHI SURGFV RI VHI  
FRP ELQMRQ RI P LGG XQH-V WFKRBJL DQG  
SX FRKBJL 0 LGG XQH-V FDQ DOR EH XVHG DV D JRRG  
DQ LQDU WFKQTXH E SX FRKBJL SV DFRUGQJ VR  
GLIHUHQWHDV HQVWFDQJRV > @ \$ IVM VHI FRCF-SVRI  
P LGG XQH-V HQMUG & KLD LV Z DV FRQVHQH V IRU  
P HGLVMDRQ LQ & KQHM=HQ VR HFR HFK RHMU 7KHU DUH  
YHU VLP LQDU SHFWEHZHQ P LGG XQH-V DQGP HGLVMDRQ  
, Q VMP V RI XVHU EH-KDYLRU P LGG XQH-V DQG P HGLVMDRQ  
UHTXUH LQGLYGDQY VR HJ SØH LQZ DQ Z KØH P DQMLQJ  
DVMRI IRFXV DQGP DQ \$ QG VHI FRCF-SVRI P HGLVMDRQ  
DOR KDV D P RUH UHQJRXV FRBJL E-FDXH RI LV RUJLQ  
\$ IVM : HVMQ DMRQ VHI UHQJRXV FRBJL P LGG XQH-V  
P HGLVMDRQ KDV DOR Z HDHQGH 0 LGG XQH-V P HGLVMDRQ  
DV D FRCF-SMDQ LQMJUDMG VLVMDQ WDLQJ P HVRG  
EHZHQ & KLD DQG VHI : HWV KDV DOR UHFHYG  
Z LGH SUHQDQMRQ

7KH LQOXH-QFH RI P LGG XQH-V RQ  
LQGLYGDQDQJ LHW DQG GHSUHVLRQ

6LVXDMRQ RI VLP LQDU VVXGHV

, Q SUHVLRV UHFURK QMUDMUH P LGG XQH-V P HGLVMDRQ  
KDV EHQ SURYHQ E P DQ VAKRDUY VR KDYH D VJQILFDQV  
IP SURYHP HQWHIFVRQ LQGLYGDQY QHJDMYH HP RMRQ/  
VFK DV G-SUHVLRQ DQG DQ LHW VURXJK HP SUJFDD  
UHFURK > @ 0 RWR VHI VEVFW ZKR SDWVSDMG LQ  
SUHVLRV VVXGHV KDYH VWRQJ QHJDMYH HP RMRQ/  
VHP VHQV 5 HV-FURKLV SD P RUH DMRQ VR FHUQJ  
VSHUHF JURXS V RP H RI ZKR DUH SDWVQV Z LVK  
SK VIKRBJLFDORU SX FRKBJLFDQGLV-HV 7KH V JURXS  
KDYH G-SUHVLRQ DQG DQ LHW G HV GLV-HV DQGP RWR

VHP DUHP RUHVHVXV VFK DV FDQHU SDWVQV GDEHVV  
SDWVQV \$ , ' 6 SDWVQV SDWVQV Z LVK JHQHDDQ HG  
DQ LHW GLVLRG-UDQDQ SDQJ GLVLRG-> @ 7KH RMRUJURXS  
LV SUHQDQV RP HQ DMRQV RU VVXGH-QV P RWR Z KR  
KDYH GRVEHQ GDJQRVHG Z LVK GLV-HV EXMDUH P RUH  
SURQH VR QHJDMYH HP RMRQ VFK DV DQ LHW DQG  
G-SUHVLRQ G HV VHI VHI XQTXH HQVLRQ HQVMDQ LG-QM  
> @ ( YHQ LV VHI LV QR VSHDDQJURXS GLUHF VHQV  
UHFURKLV Z LQ UHFUXLV VEVFW LQ D Z LGU UDDQ LQ  
FRP ELQMRQ Z LVK VHI EDNUXQG RI VHI VHP V DQ  
P RGHQ WFKRBJL VR QMULQ VLVDEØ FDQGLDM  
VFK DV XLQJ : H&KDVRI LFDQDFRXQ/DQGRM HUZ D VVR  
SXEDK DGHUHV HQV VR VHI VRFHV DVMU QMULQ LQJ  
VHI UHTXUH HQVRI VHI UHFURK VEVFW @ 5 HV-FURKLV  
Z KR UHFUXLV SDWVSDQV RQ DQJHVFDØ XVDDQ UHTXUH  
VHP VR EHQDQV KDYH QR KLVRI RI P HQDDQDQV KDYH  
QRVH SHUHQFH P LGG XQH-V RUP HGLVMDRQ VR HQMUVHI  
HIFWYHQH RI UHFURK LQMJHQMRQ DQG KDYH EHQ  
VVMG VR KDYH D FHUQJHQH UHTRI G-SUHVLRQ DQG DQ LHW  
UHFURKLV/GMULQHQ VHI HP RMRQ DVMRI SURSHFWYH  
SDWVSDQV E XLQJ D VDDØ RU FRQGFVQJ GLUHF  
LQMJH-ZV > @ 7KH VHQVVRQ UHTXUH HQV DQ  
P HVRG/ RI UHFURK VEVFW DOR GHP RQMDM VHI  
KXP DQVWF DUHRI UHFURKLV , QDQGLMRQ LQ VHI GMLQ  
RI LQMJHQMRQ HJ SHUP HQV RQ UHQDGLVXHV UHFURKLV  
JHQHDDQ SURYGH P LGG XQH-V WDLQJ IRU SDWVSDQV  
IRU Z HV DQ VHI VLP LQ RI LQMJHQMRQ WDLQJ LV  
DQHQ UHQDQYD P DMU 7KLV DOR UHQFW VHI  
FRP SHMQHVRI UHFURK LQMLV IHQ

, QDQGLMRQ VAKRDUY UHFURK RQMLV WSHRI SUREØ  
KDV D UHQDQYD IJ HG IRUP DV P HXUQJ VHI ØM-HRI  
DQ LHW RU G-SUHVLRQ RI SDWVSDQV VURXJK  
WDDQJ HG VDDV IROZ HG E FRQVXRV P LGG XQH-V  
LQMJHQMRQ IRU D FHUQJ SHUHQ RI VHP DQ ILQDQ  
P HXUQJ VHI ØM-HRI RI DQ LHW RU G-SUHVLRQ RI  
SDWVSDQV DQDQ 7KH HIFWYHQH RI VHI LQMJHQMRQ  
P HVRG LV DQDQ HG VURXJK FRP SDUVRQ EHZHQ SUHQ  
SRVVVV DQ VHI VHVQJ RI VHI FRQVXRVJURXS , Q VLP LQJ  
VVXGHV UHFURKLV RVMQ XVH VHI ) LYH ) DFRU  
0 LGG XQH-V 6FDØ ) ) 0 4 VR P HXUHQ P LGG XQH-V  
ØM-HV VHI & RQLVH 0 RRG 6FDØ 32 0 6 VR P HXUHQ  
HP RMRQ/> @ DQ XVH RMRUFDØ V LQFRQVXRV Z LVK  
VSHUHF SUREØ V VFK DV VHI 3HUHYHG 6VHV 6FDØ  
& 366 VHI ( P RMRQ 5 HVXDMRQ ' WILFXQV 6FDØ  
' ( 56 DQ VHI ' HSUHVLRQ \$ Q LHW DQ 6VHV 6FDØ  
' \$ 66 , QMLV WSHRI SUREØ FRUHQDQV DQDQ VLV DQ  
DQDQ VLV RI YUHQFH DUH P DQD XVHG VFK DV  
LQGH-QGH-QV VLP SØH 7 VVV USHDQ P HXUHQ HQV  
DQDQ VLV RI YUHQFH , Q DQGLMRQ UHFURKLV Z LQDOR  
XVH FRYUHQFH VVKVMU DQDQ VLV VFK DV FRQVXRVQJ  
VVKVMU DQDQ VLV VR EHVU HJ SØH VHI UHQDQV KLS  
EHZHQ YUHQFH Z LVK SRVVYH WLNQJ LQMJHQMRQ  
DQGHJDMYH HP RMRQ/RI SDWVSDQV  
, Q VHV VVXGH RI VHI LP SDVRI P LGG XQH-V P HGLVMDRQ  
RQ LQGLYGDQDQJ LHW DQ G-SUHVLRQ VHI UHXOV VRF HG  
VQD VHI ØM-HRI P LGG XQH-V G-SUHVLRQ DQ DQ LHW RI  
VHI VEVFW KQ IP SURYHG DQ P LGG XQH-V LQMJHQMRQ  
Z DV KJKØ HIFWYH LQ IP SURYHQ LQGLYGDQ  
P LGG XQH-V ØM-HDQ DQDQJ G-SUHVLRQ DQ DQ LHW  
, Q ; X : H HVDD UHFUXLV VLVDEØ SDWVSDQV  
VURXJK XQYHUW ØFVMU \$ IVM DQ Z HV  
P LGG XQH-V FRQVXRVQJ LQMJHQMRQ HJ SHUP HQV LVZ DV

IRXCG WDMVH CHJDMYH HP RMRQ/ RI VHM SDUWLSQW  
FRXCG EH HIFWYHO LP SURYHG WURXJK P LGGXQHW  
WDLQJ DOG VMLP SURYHP HQ/RI P LGGXQHW OYHOLVDO  
LP SRUWQ/MDFWU LQ VHM HP RMRQDOUHQ FDXHG EA VHM  
LQMYHQNRQ> @,Q -DUKNDHP VDCZ H6RP ERRQHVO  
FRQGFANG D FURW/VHWRQDP HGLMRQ VMG DOG VHM  
UHXOV KRZHG WDV 7KQ DGRQMFQW VJQIFDQO  
EHQIWMG IURP P LGGXQHW WDLQJ DOG GLIFXQHW LQ  
FRQMP SDNRQ DOG HP RMRQDOUHXQNRQ ZHUH P HGLMRQ/  
EHZHQP LGGXQHW DOG SX FRQBULEDSDQ> @,Q  
<X 6KXWQ HVDO FRQGFANG DQ ZHN P LGGXQHW  
LQMYHQNRQ FRQURQWDLQJ RQ SDUWLSQW ZKR P HV  
VHM UHDFK UHTXWHP HQW> @7KH UHXOV KRZHG WDV  
SDUWLSQW LQ P LGGXQHW WDLQJ DOG IZH HJCHJDMYH  
HP RMRQ/ DOG KRZHG VJQIFDQWFKQJHV FRP SDUHG VR  
EHRUHVHLQMYHQNRQ

5 HMDUJK FRQFOXVRQ DOG FRP SDUVRQ

0 LGGXQHW WDLQJ LP SURYHV SDUWLSQW OYHO RI  
P LGGXQHW DOG VMLU DELQW VR SHUHYH CHJDMYH  
HP RMRQ/ \$V D UHXOV SDUWLSQW KDYH D FODUJ  
XCGUWDOQJ RI VMLUHQHUP RMRQ/ DOG WURXJKW DOG  
FDQ EHVWUP DQMLQ LQHU SHDFH 6RP H UHDFK UHXOV  
VJHWWWMDWP LGGXQHW WDLQJ DOG DOR HQKQFH  
SRUWYH HP RMRQ/ EXWRP H VMGHV KDYH QRM LHQHG  
VP LDU UHXOV DOG LVLV VSHFXQMG WDV P LGGXQHW  
WDLQJ EUQJQV DERXV LQHU SHDFH LH QZHU HP RMRQDO  
DURXDO \$WVH VDPH WPH PDQ UHDFKHV KDYH  
SURSRVHG WDMVA VHWQ XS D FRQURQJURXS VEMFW  
PLJKWEH DIFWAG EA VHM + DZ WRLQH HIFW7KH XVR  
WQDQJHG VDOV IRU SUH DOG SRWVMMWQ PD EH  
LQOYHQHG EA VHM SDUWLSQW PHPRU OYHO RU  
SHURQDQW WDLV 7KH VDFWRQ RI GLIHUQASRSXQNRQ/  
FDQ DOR KDYH D VJQIFDQMP SDFWRQ VHM VMG )RU  
HJDP SOH ZKHQ WJHMQ GRQFOQFDO DOG FOQFDO  
SDUWLSQW VSHDOFRQGHUHQV QHG VR EHVONHQ LQR  
DFRFXQV VHM PHMRQ/ DOG WPLQJ RI P LGGXQHW  
LQMYHQNRQ/VR P LQJ IJHHUWV

7KH UHDMRQVKIS EHVZ HQ P LGGXQHW  
P HGLMRQ DOG VHO FRQFHSW

0 LGGXQHW KDV GLIHUQV GHILQVRQ/ LQ GLIHUQV  
FRQJW \* HQHDO VSHNLQ WLVWMP UHUVRI RFXVQJ  
DMQNRQ RQ VHM FXUHQVWDM RI VHO DZ DUHQW DOG  
HJSHUHQH FQDFWUJHG EA FXURWV RSHQQW DOG  
UHTSUYW> @0 LGGXQHW LV DOR DXQYHUDDIRUP RI  
%XGGKLV SDFWVH \$ FFRUQJ VR. DEDV LQ - VUHVDFK  
KLVWUFDQ P LGGXQHW KDV EHQ UHUVHG VR DV VHM  
KDUV LQ %XGGKLV P HGLMRQ DOG WLV FRQFHSW DOR  
DMVHFURHRI VHMGLWHP LQMRQRI %XGGKLVWMDFKLQJ> @  
7KHFRQFHSWRI KDUV LV SURSRVGE %XGGKLV VR VMG  
DOG VROY VHM WUHVSH/RI KXP DQ VQV JUHG KDQHG  
DOG LJQRUDQH ZKFK KLG V D XQYHUDDUHQ DOG VHM  
WVMRI QHEHKLQGLV QDEURGVQVH KDUV UHSUHVQV  
D SHURQV KDUVRUVRXO QD QDUJZ VQVH VHM KDUV  
PHQRQHG LQ %XGGKLV LV VP LDU VR VHM 7DR LQ  
WDMRQDQ&KQHVFXQW UHSUHVQV VHMFRUH EHQHV  
RI VMLU UHSUHVYH UHQJRXV VFRQV DOG VMLU ZD V RI  
XCGUWDOQJ VHM ZRUG DOG VROYLQ VTIHQJ 7KH

FRQFHSWRI KDUV WDV DOR EHQ LQKHMV DOG DGRSVMG LQ  
=HQ ZKFK LV GHUHG IURP %XGGKLV =HQ ZDV IRXCGHG  
EA VHM VQV DQFWRU + XHQJ DOG LVLV D XQW RI  
SDFWVH DOG VMLU > @)RU %XGGKLV DOG =HQ DO  
IRUP VRI P HGLMRQ DUH WVM P HMRQ/ DOG DSSDUQFV  
DOG VMLU FRUH QV LQ FXQVDMQ VHM KDUV %  
FXQVDMQ DOG LP SURYQJ VSLUWDO RU SV FRQBULED  
DMVFA WURXJK P HGLMRQ DOG RMLU P HQV RQH FDQ  
FKQJH VMLU P LGGHWDQ ZD RI IDLQ VHM ZRUG DOG  
VROYLQ SUREOP V DOG DFKLHYH WDMRI VHO KDUV RQ LQ  
QH

7KHFRQFHSWRI P LGG LQVHMQRQV P HQRQGE  
=HQ KDV VP LDUV V ZLV VHM VHO DZ DUHQW LQ: HVMQ  
SX FRQBU, QVHM UHDFK RI: HVMQ SX FRQBU VHM  
VHO FDQ EHQGLGGLQV QDUYH VHO DZ DUHQW 16  
DOG P LQJ DO VHO DZ DUHQW 06 7KH IRUP HUHQHV  
RQ VMDNRQDP HP RV DOG HP SKDJ HV VHM LQGLGDOV  
VDEQ DOG XQKQJLQ VHO DFRW WPH DOG VDFH  
FRQFHSW ZKQVHM DMUHQHV RQ SHUFWRQ FRJQVRQ  
DOGHJ SHUHQHVR HP SKDJ HVMDEVQWVH WDLQVRI VHM  
LQGLGDOV FXUHQV HJ SHUHQWDO LQDMV > @7KH  
FRQFHSWRI P LQJ DO VHO DZ DUHQW LV P RUH VP LDUVR  
WDMRI KDUV ,Q VHM FRP ELQMRQ ZLV (DMVQ  
SKLQVRSK : HVMQ SX FRQBU KDV SURSRVHG D  
VHOV P RGHRI SURFWLQJ SKORPHQ 6/ EDVGRQ  
VHM UHDFK RI %XGGKLV SKLQVRSK VR HJ SOQ  
%XGGKLV V DMVGH VZ DUV VHO FRQFHSW/ RQJ WMP  
P LGGXQHW P HGLMRQ/ FDQJH QHDM DOG P DQMLQD WDM  
RI VHOV WGHV ,Q %XGGKLV VHO FRQFHSW/ EHQYHG VR  
EH LQVRU DOG VHM VRUJHRI DQSDQ 7KLV LV GLIHUQV  
IURP VHM FRQFHSWRI KDUV VMGHG LQ WLV DUVQ  
\$ FFRUQJ VR) UHGVVHVRU RI SHURQDQW WVMVUJ VHM  
VHO FRQFHSW VMLUJHG EA %XGGKLV LP RUHQHVMH LG  
LQ SHURQDQW VMLU UHQMG VR LQDM LQVQFW ,Q  
P LGGXQHW P HGLMRQ VHM KDUV LV P RUH QVH VHM  
HJR ZKFK HQKQFH P LGGXQHW WURXJK SDFWVH DOG  
HQDQV EHVWU VHO DZ DUHQW DOG FRQURQ

LVFXVLRQ DOG VXJ JHMRQ

\$ VMLUHQVWUHUHUHZ HP SUIFDQVMGHV HJ SBUQJ VHM  
PHFKDQV RI P LGGXQHW P HGLMRQ DOG PRUH  
UHDFK IRFXVVRQ VHMFRUHQMRQ EHVZHQ P LGGXQHW  
P HGLMRQ DOG VHM K SRVWLV GHVULSQR RI LV LP SDFW  
PHFKDQV 2 Q VHM RQH KQD WLV HQUJFHV SHRSV  
XCGUWDOQJ RI P LGGXQHW P HGLMRQ IURP YDUJRV  
SHUHVWYH HMDQKQJ D QJHU DOG PRUH  
FRP SUKHQYH QHZRUN RI FRUHQMRQ/ 2 Q VHM RMLU  
KQD WLV UHDFK WDMV LQGLDM VMDUHVDFK RQ  
P LGGXQHW P HGLMRQ LV WMDAD UHQYHO VSHUFDQ  
OYHO DOG VMLU LV D QJHU DP RQVRI UHDFK VDFH  
&RUHQMRQ UHDFK SURYGHV VMLUHQWDO VSSRUWIRU  
SHRSV SDFWVDO DSSQFMRQ/ DOG DV D UHXOV  
P LGGXQHW P HGLMRQ KDV JQHG UFRJQVRQ IURP D  
QJHUSRSXQNRQ : LV VHM GHSHQJ XCGUWDOQJ RI  
P LGGXQHW P HGLMRQ PRUH DOG PRUH SHRSV DUH  
EHJLQJ VR WLV VSLUWDO WDLQJ PHMRQLQHQDQHV  
VR UHXQDM VMLU SK VLRJLFDQ DOG SX FRQBULED WDMV  
: KVMHVWLV LQGLGDOV RUI DP LQV ZKVMHVWLV VFRRO  
WDFKQJ RU VFLDDQV WLV P LGGXQHW P HGLMRQ LV  
HQMLQJ SHRSV QVH DOG EFRP LQ DZD IRUSHRSV

VOYH SK VROJIFDORUSX FKROJIFDOSUREOPV \$ OJH  
DPRXQV RI OAMUMH KDV SURYHQ VDW PLOGXQH/  
PHGLWNRQ KDV D SRVYH IP SDFWRQ SHRSO HSFID  
IRUMRVHIQDGYHUVVMDNRQ/ QJDIYHSX FKROJIFDORU  
SK VROJIFDO FRCEVNRQ/ ZLW D PRUH VJQILFDQ/  
PRGLUHQJ HIHFV: LW VH GYHOSP HQVRI UHFDJK  
WFKROBJA VFKROJY KDYH DOR EHJXQ VR FROGFWRP RUH  
VUJHMG UHFDJK RQ PLOGXQH/ PHGLWNRQ E  
FRPELQJ QZ WFKROBJLHV )RU SUHYRXV UHFDJK  
VSLFV QZ WFKROBJLHV FDQ SURYLGH QZ UHFDJK  
SHUSFWYHV DQG PDNH XS IRU VH VROJIFDORU RI  
SUHYRXV UHFDJK 7KLV DOR EUQJVP RUH SRVLEOH VRIU  
HJ SROJQJ DQG UHFDJKQJ VH PFKDQJVP RI  
PLOGXQH/ PHGLWNRQ ,Q DGGVNRQ SUHYRXV/ ELJ GD  
VDMVNFV KDYH VRZQ VDW VH UHFDJK KRASRW RI  
PLOGXQH/ PHGLWNRQ YDU DFRW GLIHUHQ/VXOMUD  
EDFNUYXCGV ,Q HJ SROJQJ VH VSHFLIF PFKDQJVP RI  
PLOGXQH/ PHGLWNRQ DMMQNRQ VPKXG EH SDG VR  
FXOMUD DQG VRFDQJ GLIHUHQFV

O LOGXQH/ PHGLWNRQ LV D SURGFARI VHIXVRQ RI  
YDURXV VAKROY RI VPKJKWLQ SHRSOIV SUDFVH RI  
HJ SROJQJ VH ZRUG RAZDUG DQG XQJUDQDQJ  
VFPVHQV LQZDUG ZLW VH FKUDFVUWV RI  
GYHOSP HQV/ DQG UFKQV 7KH FRQXVLRQ RI YDURXV  
FRQF-SW DQG VFRUHV DOR OGDV VR PLXQGHUWQDQJ  
DQG GLILFXQV/ LQ VH SURFW RI SUDFVDO  
IP SOP HQVNRQ DQG UHFDJK HJ SROJNRQ: KHQVWG LQJ  
UHDVGLVXHV RQH VPKXG UH RYHDSH DUDQFV DQG JUDS  
VH HXVHQF ' XHV RYH QP HURXV RYUHV RI VFRUHV DQG  
VH LQYROYHP HQVRI UHJURXV/ DFRV/ FRQF-SW DUDQFV  
EDVHG UHFDJK VPKXG EH GYHOSP HG VUJHMHU ZLW  
SUDFVDO HJ SROJNRQ EDVHG UHFDJK SURYLGQJ  
VFRUHV DQD DQG GD VSSRUVR HFK RYHU PDQJ VH  
UHFDJK FODUJ PRUH VLFHQWLF DQG OJIFDO  
6XP PDJ HG UHFDJK VXP PDJ HV VH OAMUWUHMFDJK  
HFXOV GLVFRYHU/ DQG HJ VDFW P RUH XQYHUWQDQJ V DQG  
FRPELQV/ YDURXV/ VFRUHV/ VFKDV: HVMQ DQG ( DMMQ  
PRGLUQ VLFHQF DQG UHJURXV VUJHMHU/ HV VR PDNH  
UHDVQDQF VSHFXDNRQ/ SURYLGQJ PRUH VUJHMG  
JXLDQFH IRU HP SUDFVDO HJ SROJNRQ UHFDJK DQG  
VP SQV LQJ FRP SQV LW ( [ SROJNRQ UHFDJK QP HG DV  
SUDFVH VPKXG FORVH SD DMMQNRQ VR FXMQJ HGJH  
WFKROBJLHV DQG FXUHQVSRQV DOKRASRW FXOMUD DQG  
UHJURQD GLIHUHQFV DUH ZRUG QRMQJ DSSO QZ  
WFKROBJLHV VR SUREOP UHFDJK GYH LQR SUHYRXV  
UHFDJK VSLFV ZKLOH NHSLQJ XS ZLW VH GYHOSP HQV  
RI VH VFP HV HJURK VH UHFDJK FROV RI PLOGXQH/  
PHGLWNRQ DQG SURYLGH GD VSSRUVRU VH HJ SROJNRQ  
DQG VXP PDJ RI XQYHUWQDQJ V

VV/ ZRUG QRMQJ VDWVQIXMUH HP SUDFVDO HJ SROJNRQ  
UHFDJK DMMQNRQ VPKXG EH SDG VR GLVQJXV LQJ DQG  
DYRLGQJ RYHU FRP SQV UHFDJK RU IDQJ LQR  
PLXQGHUWQDQJ V ,Q VLV DUVQF E VVG LQJ VH  
FRQF-SVRI VHD LQ PLOGXQH/ PHGLWNRQ LVV/ IRXQGV DQV  
GLIHUHQVFRUHV RI VHD FRQF-SWQ: HVMQ SX FKROBJA  
KDYH YDU LQJ GJUHVR RI VP LQJ DQG GLIHUHQFV ZLW  
VH FRQF-SVRI PLOG LQ=HQ ,Q IXMUH UHFDJK RQ VH  
PFKDQJVP RI PLOGXQH/ PHGLWNRQ UHFDJK HV  
VPKXG FDUHXO FRP SQV DQG GLIHUHQDMM EHRUH  
SUDFVH VDFW P RUH VUJHMHU VFRUHV/ IRU VSSRUVR DQG  
UHGFV VH VPKXG LQ HJ SHUP HQV DGHVJQ DQG DQD VLV  
VUJHV

### 6 & RQFOXVLRQ

7KURXJK D VXPPDU\ DQG DQDO\VLV RI S  
LW FDQ EH VHHQ WKDW WKH UHVHDU  
PLQGIXOQHVV PHGLWDWLRQ LV PRVWO  
WKHUH DUH IHZ HPSLULFDO H[SORUDWR  
PHFKDQLVP RI PLQGIXOQHVV PHGLWD  
FRPSOH[LW\ RI WKH LQWHJUDWLRQ RI  
UHOLJLRQ DQG SV\FKRORJ\ LQYROY  
PHGLWDWLRQ WKLW PD\ EH WKH UH  
UHVHDFK LV GLILFXOW WR DGYDQFH  
LPSURYHPHQW DQG GHYHORSHPHQW RI U  
KRSH WKDW UHVHDFK GLILFXOWLH  
RYHUFRPH ,Q DGGVNRQ UHFHQW EL  
WKDW PLQGIXOQHVV PHGLWDWLRQ KDV  
E\ UHVHDFKHUV DQG WKH UHVHDF  
FRPELQHG ZLWK VSHFLILF VRFLDO FI  
GLIHUHQFHV LQ WKH UHVHDFK FRO  
PLQGIXOQHVV PHGLWDWLRQ EHWZHHQ  
FRXQWULHV PDLQO\ GXH WR GLIHUHQ  
VRFLDO GHYHORSHPHQW OHYHOV )URP  
PLQGIXOQHVV PHGLWDWLRQ KDV DOVR  
SHRSO V OLYHV DQG EHFRPH DQ HIHF  
UHJXODWH WKHLU HPRWLRQV DQG SKV  
7KLV DOVR GHPRQVWUDWHV WKH QHFH  
PLQGIXOQHVV PHGLWDWLRQ UHVHDFK

### 5 HUHGFHV

- < 4 3HQ - 1 DQMJ 1 RUP 8 QY 6RF 6FL( GW
- : 6 6KL - ; XJ KRX 1 RUP 8 QY 3KLO 6RF 6FL( GW
- % =KRX \* : DQJ + <X / <X <= =KQJ  
1 XUV5HV
- 77 /L 60 /LX %5 &KQJ / /X &; ; XH  
0 HG3KLOV %
- 5 <DR 4 3 7DQJ </ ' HQJ &KQHV - &QJ  
3V FKRO
- . DEDV=LQ - &QJ 3V FKRO 6FL 3U ±
- < /L 0 1 ; L + < 6KHQ 3V FKRO 6FL
- DUJNDV P VDWZHH 6RPERQ 3LVWQJNDJ DQ  
. XQD / HQV VNMQV 7KQDSRO \* RQ i QJ  
1 DQD/ DQ , QV \$ GROMHQV HG+HDK  
: ; X <= : DQJ ; + /LX &KQHV - 0 HQV  
+HDK
- 67 <X : ; X ; + /LX / &; LDR &KQHV -  
0 HQV+HDK
- &RV DQG - ' DKO \$ QALQ / XW 5 LFKDQ -  
' DYLGRQ 7HQGV &RQ 6FL
- %4 /L ; ' =KQJ - 1 DQMJ 1 RUP 8 QY 6RF  
6FL( GW
- <DU H RU=LGHUP DQ \$YLD H/HUNRYL 2KQD  
-RVFK H QFNVRQ \$ EUDQF H RQVMLQ )URQV  
+XP 1 HURV