ARTS2092

; `cVU`˙A YX]U.˙A Uf_Yhgž: `ck g˙UbX˙7 i `h˙ fYg

HYfa ˙Hk c ˙˙##˙˙&$&%

7ci fgY Cj Yfj]Yk

GhUZZ 7cbhUWh 8YhU]`g

7cbj Ybcfg

BUa Y	9a U]`	5j U]`UV]`]hm	@cWUh]cb	D\cbY
GWchh G\UbYf	g"g\UbYf4 i bgk "YXi "Ui	Cb]bY j]U Ya U]` UbX A ccX Y	gYY A ccX Y	B#5

Hi hcfg

BUa Y	9a U]`	5j U]`UV]`]hm	@cWUh]cb	D\cbY
5mYg\U < UgUb	UmYg\U"\UgUb4 i bgk "YXi "Ui	cb]bY j]U Ya U]` UbX]b WUgg A ccX Y		B#5

GWX cc` 7cbhUWh]bZcfa Uh]cb

GWX cc` cZ h\Y 5fhg UbX A YX]U

Fcca ¨ %&ž @jY `` ž FcVYfh K YghYf 6i]X]b[fl %(Ł

D\cbY f$&Ł-',)`(,)*

9a U]` gUa 4 i bgk "YXi "Ui

K YVg]hY k k k "Ufhg"i bgk "YXi "Ui #gUa

H\Y GWX cc` cZ h\Y 5fhg UbX A YX]U`k ci `X`]Y hc`FYgdYWh``m `5Wbbck`YX[Y h\Y HfUX]h]cbU``7i ghcX]Ubg ž h\Y 6YX][U` ff?Yg]b[ hcb WUa di gŁž UX][U `f7 mbUbX 5fhg 8Yg][b 7Ua di gŁUbX h\Y B [i bbUk U` dYcd`Y ff5i ghfU]b 8YZYbW`: cfWY 5WUXYa ]b 7UbVYffUŁcZ h\Y `UbXg`k \YfY YUW\ WUa di g cZ I BGK ]g `cWUhYX"

7ci fgY 8YhU]`g

7fYX]h Dc]bhg ˙*˙

Gi a a Ufm cZ h\Y 7ci fgY

f¡ `cVU``A YX]U. ¨A Uf_Yhg ž: `ck g UbX 7i ¨h fYgf¿cW gYg cb h\Y fY Uh cbg \]d VYhk YYb a YX]U UbX [ `cVU` gUh cb" K Y k ]`Y Ua]bY h\Y \]ghcfm cZ]bhYfbUh cbU` fUXY Zck g ]b Ui X]cj gi U` `ccXg UbX gYfj ]WYg UbX YI d cfY \ck ¨h\YgY \Uj Y W\Ub[ YX h\fci [ \ `cVU` ¨fYbXg hck UfX fY[ ]cbU` gUh cbž Wci bhYf Zck UbX h\Y]bWfYUg]b[¨fUbgbUh cbU` dfcXi Wh cb UbX X]ghf]Vi h cb cZa YX]U" BYk ¨mYa Yf[ ]b[ Zcfa g cZW\ ¨i fY UbX ]XYbh mVUgYX cb h\Y YI dYf]YbWY cZWcga cdc`]hUb]ga ž\mVf]X]hm UbX X]UgdcfU k]``VY YI Ua ]bYX ]b XYhU]``]b fY Uh cb hc a YX]U Zcfa g gi W\ Ug h\Y Yj]g]cb Zcfa Uhg UbX XfUa U dfc[fUa gž bYhk cf_YX a YXUž žm ¨UbX a i g]W\ G¨i XYbhg W\cca d `Yb[ ¨h\ g Wci fgY k ]¨fYW\ ]jY U ¨h\ cfci [ \ fci bX¡b[ ]¨b ¨h\Yk Um a YX]U Wcbhf]Vi hY hc h\Y ]bhYfbg¿W\Uh cb cZci f ]X YdYf]YbWY cZh\Y k cfX Ug U `k \c Yžk]]XX k]¨]``dUj Y h\Yk Um žcf¨`]fh\Yf gh Xm]b ]bhYfbUh cbU``UbX ¨fUbgbUh cbU` a YX]U"

7ci fgY @YUfb]b[¨Ci hWca Yg

%" ¿XYbh mUbX Udd`m _YmWcbW dhg UbX h\Ycf]Yg k ]W\ YI d`U]b h\Y fY Uh cbg \]d VYhk YYb a YX]U UbX [`cVU` gUh cb

&" 5WWci bh Zcf h\Y fc Y ¨[`cVU` a YX]U d Umg]b Zcgh fb]b[¨bYk ¨dUh Ybg cZW i h fY UbX]XYbh]W ¿WUh cbž k]W\ UfY ¨bc¨cb[Yf gc Y ¨mVUgYX cb ¨[Yc[fUd\mž UbX]b Xc]b[¨gc UddfYW]Uh YX Yfg]hm Ua cb[¨UbX k]h\]b ¨Wi` fYg"

'" 8]gWi gg h\Y VU`UbWY VYhk YYb h\Y fi `cVU`¡UbX h\Y ¡`cVU`¡b X]ZZYfYbh Zcfa g cZa YX]U]b fY Uh cb hc h\Y WcbhYI hc cZh\Y [¨dfcXi Wh cb UbX X]ghf]Vi h cb"

(" ¿XYbh mm _YmhfYbXg UbX dUhhYfbg]b h\Y Zck `cZUi X]c!j gi U` `ccXg UbX gYfj ]WYg UbX Yj U`i UhY h\Y]a dUWh ¿cZUhhYa dhg hc fY[i `UhY h\Ya

HYUW\]b[GhfUhY[ ]Yg˙

F Uh]cbU Y.

5XX]h]cbU`XYhU]`g.

: cf`U`Z``XYgVf]dh]cb`cZ`h\]g`Ugg][ba Ybh`d`YUgY`Wcbgi `h`h\Y`5F HG&$-&`7ci fgY`A ccX`Y"`H\]g`]g`U`[fci d`Ugg][ba Ybh'

5hhYbXUbWY'F Yei]fYa Ybhg

Ghi XYbhg'UfY'ghfcb[`mYbWci fU[ YX`hc`UhhYbX`U``WUggYg`UbX`fYj ]Yk ``YWhi fY`fYWcfX]b[g"

7ci fgY'GWXYXi `Y

J]Yk `WUgg'h]a YhUV`Y

H]a YhUV`Y

8UhY	HmdY	7cbhYbh
K YY_'%'' '%A Um!'('>i bY	@YWhi fY	I bXYfghUbX]b[`; `cVU`]nUh]cb`UbX`A YX]U
	Hi hcf]U`	Þhfc`hc`h\Y`WUgg/; `cVU`]gUh]cb`UbX`h\Y`A YX]U Hi hcf]U`g`UfY`U`WXUbWY`Zcf`mci `hc`[U]b`gca Y`fYU`h]a Y`UbX`gdUWY`Zcf`mci `hc`X]gWi ggž`[c`cj Yf`UbX`Ug_ ei Ygh]cbg`UVci h\h\Y`a UhYf]U`mci `UfY`VY]b[`UggYggYX`cb"BUhi fU`mž`h]g`\ci `X[ck]h\ci fgUm]b[ž`h\Ymk]``g]b[ZWUbhmVccgh`mci f`WXUbWYg`cZ`gi WWYgg]b`h\Y`Wci fgY"Bch`UhhYbX]b[ `U`WUgg]g`bch`Ub`YlWi gY`Zcf`ZU]`]b[ `hc`_bck `k \Uh`hc`Xc`cb`h\Y`UggYgga Ybhg"
	F YUX]b[	7ci fgY'F YUX]b[• : `Yk žHYffm'f&$%, Ł"; `cVU`]nUh]cb`H\Ycf]Yg"`Þb`A ccXY`'
K YY_'&'+'>i bY !'%% >i bY	@YWhi fY	Dc`]h]WU`YWcbca]WU`ddfcUWXYg`hc`; `cVU`A YX]U UbX`h\Ycf]Yg`cZ`a YX]U`XYdYbXYbWm
	Hi hcf]U`	HcXUm'k Yfî X]gWi gg`h\Y`dc`]h]WU`YWcbca m'cZ`f`cVU`a YX]UfiUbX`cc_`Uh`WUgY`ghi X]Yg`k \]W\`fU]gY`[`cVU`fY[i `Uhcf'ei Ygh]cbg]b`fY`Uh]cb`hc`h\Y`a YX]U
	F YUX]b[	7ci fgY'F YUX]b[• 5fmžŻ@"'7\UdhYf'' ."HfUbgbUh]cbU`_A YX]U" : fca `5fmžŻ@"9 `.aTS^7`fVUfS[_ W f? WW[S, 3 5pff[US^;`fpaVgUff[a` K YghGi ggYlžI ?ž K]Ym'6UW_k Y"ž&$%) žd[g`+%!, ("
K YY_'''.%) '>i bY !'%, >i bY	@YWhi fY	7i `hi fU`=a dYf]U`]ga `UbX`8Y!K YghYrì]nUh]cb.8cYg`h\Y`h\Ycfm'cZ`Wi `hi fU`]a dYf]U`]ga `gh]``Udd`m'hc`[`cVU`a YX]U`hcXUm3
	Hi hcf]U`	Hi hcf]U`'!'`g'Wi `hi fU`]a dYf]U`]ga `gh]``fY`YjUbh`hcXUm3
	F YUX]b[	GdUf_gž 7 "f&$%, Ł"; `cVU`A YX]U'Ghi X]Yg. Þfcì

		8YjY`cda YbhUbX8]Yaa Ug"˝? WW[Sł5g ́fgdWS`V EaU[Wfk"ʼ)f¼łž[g"%&%ł% %"
K YY_´(.˙&%˙>i bY˙!˙&) >i bY	@YWh fY	8]UgdcfU.˙Ai `h]˙cWWJ]hˇ]b˙U`[`cVU`k cf˙X
	Hi hcf]U`	Hi hcf]U`!˙A YX]U˙UbX˙Wca a i b]hˇYg˙cZ˙X]UgdcfU . .
	F YUX]b[	G]bWU]fž˙=UbX˙7 i bb]b[\Ua žG"f&$$%ł˙˝8]UgdcfUg UbX˙h Y˙A YX]U"ʼˇ: fca ˙8 ́aSf[`Y˙>]hWe, FZW? WW[S S`V 3ey`S`6[Sebadˇe"C I žcfXžI ?žF ck Ub˙UbX @]hˇY¼Y`Xg˙Di V`]g\Yfgždd"%!˙$˙C B@MfB ch˙h Y Ybh]fY˙WUdh Yf!˙Y¡˙Wi XY˙Zfca ˙h Y˙fDi V`]W Gd\Yf]W ˙YgfigfYWh]cb˙cbk UfXgŁ".
K YY_´).˙&, ˙>i bY˙!˙&˙>i `m	@YWh fY	7cga cdc`]hUb]ga .˙5fY˙k Y`]bWfYUg]b[˙m]W]hznYbg cZˇh Y˙k cf˙X3˙
	Hi hcf]U`	7cga cdc`]hUb]ga ˙!˙U`Zcfa ˙cZW˙h i fU˙`Y˝]h]ga ˙cf Y[ U`Uf]Ub[˙cVU`[ `cVU`˙Vj]˙gcWJYhm?
	F YUX]b[	J UbXYj ccfhžF "˙f&$%˙Ł˙A cfU`˙cga cdc`]hUb]ga ˙UbX h Y˙jYfm XUm]Z[Y. \ck ˙gh]˙XYbdg YbWci bh˙Yf˙X]ghUbh ch Yfg"? WW[Sł5g ́fgdW˝ EaU[Wfk˙&$%˙žJc`"˙($f&Ł %˙)−&%$
K YY_´*.´) ˙>i `m!˙-˙>i `m	łbh Ybg]j Y	: @9L˙K 99?˙!˙H< 9F 9˙5F 9˙BC ˙7@5GG9G 8I F ˙JB; ˙K 99?˙´*´f) ˙>I @M!˙-˙>I @Ł
K YY_´+.%&˙>i `m!˙%* ˙>i `m	@YWh fY	7i `h fU`˙\m`f]X]hmˇUbX˙a i `]h]˙W`h fU`]ga ˙Ug [`cVU`˙W`h fY
	Hi hcf]U`	7i `h fU`˙<m`f]X]hmˇUbX˙A i `]h]˙W`h fU`]ga .
	F YUX]b[	? fU]Xmž˙A "˙˝7i `h fU`˙<m`f]X]hmˇUbX˙łbh YfbUh]cbU` 7ca a i b]WUh]cb˙: ˙k Td[V[fk, FZW5g ́fgdcS^>aY[UaX 9 ́aTS[eSf[a` "˙D\]UXY`d\]UžˇHYa d`Y¡ b]jYfg]hmž &$$)˙ždd"%ł%("
K YY_´,.%- ˙>i `m!˙&˙>i `m	@YWh fY	łbh YfbUh]cbU`˙>ci fbU`]ga
	Hi hcf]U`	

		˝5i h\cf]hUf]Ub˙8ck b[fUX]b[žˇfGY˙ʑW bgcfg\]d˙UbX BYk˙A YX]U˙5W j]ga˙Uz Yf˙h\Y˙5fUV˙Gdf]b[˝
K YY_˙%\$.˙&˙5i [i gh!˙* 5i [i gh	@Y W\i fY	7 cbWi g]cbg.˙F YgYUfW\]b[˙; `cVU`A YX]U
	Hi hcf]U`	E #5˙UVci h h\Y˙fYgYUfW\˙dUdYf

F Ygci fVVg

DfYgWf]VYX F Ygci fVVg

- 5``fYUX]b[g UfY Uj U`UV Y j]U @Y[Ubhc UbX h Y Wci fgY A ccX Y

F YWca a YbXYX F Ygci fVVg

DYf]cX]WU``m UXX]h]cbU`fYgci fVVg k ]``VY a UXY Uj U`UV Y hc gh XYbhg j]U h Y Wci fgY A ccX Y" Gh XYbhg UfY fYgdcbg]V Y cf _YYd]b[i d hc XUhY k]h Ubm]bZcfa Uh]cb cf fYgci fVVg h UhUfY dfcj]XYX j]U h Y A ccX Y cb U k YY_ Vm k YY_ VUg]g"

7ci fgY 9j U`i Uh]cb UbX 8Yj Y`cda Ybh

DYf]cX]WU``m gh XYbh Yj U`i Uh]j Y ZYYXVUW_ cb h Y Wci fgY]g [Uh YfYXž i g]b[a cb[ch Yf a YUbgž I BGK fg
A m9l dYf]YbWW DfcWYgg" Gh XYbh ZYYXVUW_]g hU_Yb gYf]ci g m UbX Wcbh]bi U`]a dfcj Ya Ybhg UfY a UXY hc
h Y Wci fgY VUgYX]b dUfh cb gi W ZYYXVAW_"

.

Gi Va]gg]cb ´cŽ´5ggYgga YbhˇHUg_g

Hi fb]h]b ´Gi Va]gg]cb

=Zmci ´YbWci bhYf´U´dfcV´Ya ´k \Yb´UhhˇYa dh]b[´hc´gi Va]hmci f´Ugg][ba Ybhˇ\fci [\´Hi fb]h]bž´d´YUgY hY´Yd\cbY´9I hYfbU`´Gi ddcfhˇcb´-´' , ) ˇˇ ' ' %cf´Ya U]`hˇYa ´cb´YI hYfbU´hY´gi ddcfh4i bgk "YXi "Ui "´Gi ddcfh \ci fg´UfY´, .$$Ua ´−´%$.$$da ´cb´k YY_XUmg´UbX´−.$$Ua ´−´) .$$da ´cb´k YY_YbXg´f1 *) ´XUmg´U´mYUfŁ´=Zmci UfY´i bUV`Y´hc´gi Va ]hmci f´Ugg][ ba YbhˇXi Y´hc´U´ZUi `h´]h\´Hi fb]h]b´mci ´a UmˇUdd`mˇcf´Ub´YI hYbg]cbžˇVi hˇmci a i ghˇfYHU]b´mci f´h]W_Yhbi a VYf´Zca ´9I hYfbU`´Gi ddcfhˇfU`cb[ ´k ]h\´UbmˇchˇYf´fY´Yj UbhˇXcW´a Ybhgَ´hc ]bWi XY´Ug´Yj ]XYbWˇhc´gi ddcfhˇmci f´YI hYbg]cb´Udd`]WUh]cb"´=Zmci ´Ya U]`´9I hYfbU`´Gi ddcfhˇmci ´k]` Ui hca Uh]WU``mˇfYWj ]j Y´U´h]`W_Yhbi a VYf´fž´Vi h]Zmci ´hY´Yd\cbY´mci ´k ]`bYYX´hc´gdYW]Zž´WU``mˇUg_ˇcf´cbY" Hi fb]h]b´U`gc´dfcj]XYg´i dXUhYg´cb´h\Y´ˇfˇgmghˇa ´ghUhi g´cb´Hk]hhYf"

; YbYfU`´mžˇUggYgga YbhˇHUg_g´a i ghˇVY´gi Va]hhYX´Y´YWfcb]WU``mˇj]U´Yˇh\YfˇHi fb]h]b´cf´U´A ccX´Y Ugg][ba Ybhˇ−b´]bghUbWYg´k \YfY´h\]g´]g´bchˇdcgg]V`Yž´h]k ]`´VY´ghUhYX´cb´mci f´Wci fgYˇ´g´A ccXˇY´g]hY´k]h\ U`hYfbUhj Y´gi Va]gg]cb´XYhU]´g"

: cf´]bZcfa Uh]cb´cb´\ck ´hc´gi Va]hˇUgg][ba Ybhg´cb´bY´j]U´A ccXˇY. \ﬁﬂg.##ght XYbh]i bgk "YXi "Ui ﬁ\ck ! gi Va]hˇUgg][ba YbhˇmccXˇY

5 WlUXYa]W< cbYghmUbX D`U[ ]Uf]ga

D`U[ ]Uf]ga ]gi g]b[ h\Y k cfXg cf ]XYUg cZ ch\Yfg UbX dfYgYbh]b[ h\Ya Ug mci f ck b" ‡h WUb h U_Y a Ubm Zcfa g ‡Zca XY ]VYfUhY WXYUh]b[ hc UWW]XYbhU `m Wcdm]b[Zca U gci fWY k]h\ci h UW_bck `YX[Ya YbH

I BGK [fci dg d`U[ ]Uf]ga]bhc h\Y Zc``ck]b[WUhY[cf]Yg.

5WUXYa]W‡bZcfa Uh]cb

: cf YggYbh]U gh XYbh]]bZcfa Uh]cb fY Uh]b[hc.

- fYei Yghg Zcf YlhYbg]cb/
- `UhY gi Va]gg]cbg [i]XY]bYg/
- fYj]Yk cZa Uf_g/
- I BGK <YU`h\ UbX GUZYhm dc`]W]Yg/