



ARTS1631

☯hfcXi Wc fm>UdUbYgY '6

HYfa 'H\fYY'##'&\$&\$

7 ci fgY`Cj Yfj]Yk

GHJZ`7cbHJW`8YHJ]`g

7cbj Ybcfg

B Ua Y	9a U]			

7ci fgY'8YHJ`g

7fYX]hDc]bqg '*`

Gi a a UfmicZ\hY'7ci fgY

H\Y`Wci fgY`Zc`ck g`f`hfcXi Wc`fm>UdUbYgY`5fUbx`Z`fhYf`]b`fcXi Wg`U`bi a VYf`cZVUg]W>UdUbYgY
g`f`i`W`i`fYg`UbX`j`cWUvi`Ufmh`U`h`UfY`YggYbh]U`h`c`VUg]W>UdUbYgY`Wca`a`i`b]WU]cb`" `hU`gc`c`ZYfg`YUfb]b[`cZ
UVci`h`-\$`bYk`'?`Ub`j`z`>UdUbYgY`W`UfUW`Yfg`Mci`k`j`YUfb`h`Ya`h`fci`[`\`Zj`Y`W`h`fU`h`cd]Wg`.%":`Uj`ci`f]h`
h`]b[`g`UbX`UW]j`]h`Ygž`&":`Ua`]mž`" `: `ccXž`(" `HfUj`Y`]b[`d`Ubgž`" `5bbi`U`Yj`Yb]qg`" `h`YUW`h`cd]Wž`k`\]Y
gh`Xm]b[`h`Y`Ub[`i`U[`Yž`mci`UfY`W`U`Yb[`YX`h`c`X]gWc]`Yf`X]ZYfYbhUddfcUWYg`h`c`j`]Yk`]b[`h`Y`k`cf`X
gi`f`ci`bX]b[`mci`" `]b[`i`]gh]W`"miUbX`W`h`fU`mž`UbX`UfY`[`]j`Yb`h`Y`cddcfi`b]m]h`c`i`bXYfghUbX`W`fYb]hgc`W]c!
W`h`fU`]ggj`Yg`]b`>UdUb`"

7ci fgY`@YUfb]b[`Ci hWca Yg

%`Gi`ghU]b`g]a`d`Y`Wcbj`YfgU]cbg`]b`>UdUbYgY`k`\Yb`hU`_]b[`UVci`hcbYfg`ZJa`]miUbX`Yj`YfmXUm`]Z`"
&`F`YUX`UbX`k`f]h`g]a`d`Y`g`c`f`id`UggU[`Yg`]b`>UdUbYgYž`]bW`i`X]b[`bYk` `,+`?`Ub`j`d`i`g`h`Y]f
Wca`V]bU]cbg`"
'`" `I`gY`h`Y`W`bc`c`[`m]Y`ZY`W]j`Y`m]Z`f`Yl`d`fYgg]b[`cbYgY`Z]b`>UdUbYgY`"
(`" `K`cf`_`Wc`"UVcfU]h]`Y`mk`]h`c`h`Yfg`h`c`VY`Wca`Y`U`Wca`d`Y`h`bh`Ub[`i`U[`Y`Y`UbYf`"

HYUW]b[`GhFUH[`]Yg`

H\Y`Wci fgY`]g`hUj`[`\hVmk`UmicZ`h`c!`l`ci`f`Y`W`i`fYž`cbY!`l`ci`f`h`h`c`f]U`ž`UbX`h`k`c!`l`ci`f`g`Ya`]bUf`k`YY`_`m]`h`h`Y
Y`W`i`fYž`mci`k`j`YUfb`UVci`h`h`Y`W`cb`h`Y`h`i`U`_`bck`YX[`Y`c`Z`>UdUbYgY`Ub[`i`U[`Y`UbX`"Ub[`i`U[`Y`Y`Ufb]b[`"
h`h`c`f]U`g`UbX`gYa`]bUfgž`mci`k`j`a`U]b`mid`fUW]W`i`g]b[`>UdUbYgY`Wc`"UVcfU]h]`Y`mž`ghU]h]b[`k`]h`VUg]W
Z`bW]cbg`h`c`Wca`d`fY`Y`bg]j`Y`hUg`_g`" `h`Y`f`Y`U]h]b[`k`]h`c`h`Y`f`Wci`fgY`a`Ya`VYf`]b`Y`W`i`fYgž`h`h`c`f]U`gž`UbX
gYa`]bUfg`]g`U`gc`YggYbh]U`" `Mci`k`j`VY`Yl`d`Y`W`Y`X`h`c`d`U`f]h]d`U`h`]b`d`U]f`c`f`[`fci`d`hUg`_g`UbX`X]gW`gg]cbg`]b
h`]g`Wci`fgY`"

5ggYgga Ybh

5ggYgga YbhHUg_g`

5ggYgga YbhHUg_	K Y][\h	8i Y'8UHŸ	Gh XYbh@YUfb]b[Ci hWta Yg'5ggYggYX
@YUfb]b['Dfc YWŸ	;%\$!	K YY_`%\$	%ž ž(
:]bU`9I Ua `	')	9I Ua `DYf]cX	%ž&ž
K f]h]b['HYghg`	')	K YY_` žK YY_) žUbX`K YY_` %\$	%ž&ž
hYfUW]cb`HYgh	&\$!	K YY_`-	%ž ž(

5ggYgga Ybh8YHU]`g

5ggYgga Ybh%`@YUfb]b['Dfc YWŸ

GHUfhXUHŸ. `Bch5dd`]WUV`Y

8YHU]`g.

Gh XYbhg`WccgY`dfc YWŸcdh]cbg`Zca `U`]ghdfcj]XYX`VmŸY`YWŸ fYf`5ZŸf`Wta d`Yh]cb`cZŸY`dfc YWŸ
Wc]WžgŸ XYbhg`Wta d`Yh`U`fYZYW]cb`g`YYh]b`Ubgk Yf]b[`ei Ygh]cbg`Vmi`g]b[`Vch`>UdUbYgY`UbX
9b[`]g\`"Gca Y`g]a d`Y`ei Ygh]cbg`bYX`hc`VY`Ubgk YfYX`]b`>UdUbYgYžk`\\]Y`a`cfY`Wta d`YI`ei Ygh]cbg`Wb
VY`Ubgk YfYX`]b`9b[`]g\`"H\Y`Yb[h`cZYUW`Ubgk Yf`g\ci`X`VYhk`YYb`) \$!%\$`YŸf]g`]b`>UdUbYgYž`UbX
%\$!&\$!`k`cfXg`]b`9b[`]g\`"Gh XYbhg`fYW]j`Y`U`a`Uf`"

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

D`YUgY`fYUX`h`Y`dfc YWŸ]bZcfa`Uh]cb`g`YYhžk`\\]W`]g`cb`A`ccX`Y`]b`h`Y`dfc YWŸh`fYUX`WfYž`"miZc`f`a`cfY
XYHU]`g`"Mci`Wb`WccgY`dfc YWŸcdh]cbg`Zca`h`Y`"ghh`YfY`"5ZŸf`Wta d`Yh]b[`cZmci`f`dfc YWŸWc]Wgž`UbX
]b`h`Y`dfc YWŸdc]bh]g`g`YYhk`\\]W`]g`Uh`h`Y`YbX`cZŸY`]bZcfa`Uh]cb`g`YYh`"

Hi fb]h]b`gYŸh]b[.`H\]g`]g`bchU`Hi fb]h]b`Ugg][`ba`Ybh

5ggYgga Ybh&.`:]bU`9I Ua

GHUfhXUHŸ. `Bch5dd`]WUV`Y

8YHU]`g.

:]bU`9I Ua `k`]`VY`\\Y`X`Xi`f]b[`h`Y`i`b]j`Yfg]mYI`Ua`dYf]cX`"H\Y`YI`Ua`]g`Zc`f`&`\ci`fg`"

H\]g`]g`h`Y`ž]bU`UggYgga YbhHUg_`Zc`f`UHŸ`bXUbW`di`fdcgYg`"Gh XYbhg`fYW]j`Y`U`a`Uf`"

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

F Ygci fWg

DfYgWf]VYX`F Ygci fWg`

; Yb_]`%ž5b`]bhY[fUHyX`Wci fgY`]b`Y`Ya YbhUfmi>UdUbYgYžGYWcbX`9X]h]cb`f&\$%\$%

; Yb_]`%ž5b`]bhY[fUHyX`Wci fgY`]b`Y`Ya YbhUfmi>UdUbYgYžK cf_Vcc_žGYWcbX`9X]h]cb`f&\$%\$%

7ci fgY`BchYg`Zcf`5F HG%*` %&\$&\$`fcb`A ccX`YŁ

F YWca a YbXYX`F Ygci fWg

D`YUgY`gYY`ci f`A ccX`Y"

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

: cfa U`Yj U`i Uh]cb`k]`VY`WcbXi WYX`VmiA m9I dYf]YbWž`UbX`hY`fYgi`hg`k]`VY`i gYX`hc`]a dfcj Y`Zi hi fY
]hYfUh]cb`cZh]g`Wci fgY`" #Zcfa U`žfYU`!h]a Y`ZYXVUW_]g`U`gc`k Y`Wca Y`]b`dYfgcb`cf`h]fci [\ `A ccX`Y"

Gi Va]gg]cb`cZ5ggYgga YbhiHUg_g

Hi fb]h]b`Gi Va]gg]cb

≠mci`YbWci`bHYf`U`dfcV`Ya`k` \Yb`UHYa`dh]b[`hc`gi`Va`]hmc`i`f`Ugg][`ba`Ybhi`h`fci`[`\`Hi`fb]h]b`z`d`YUgY`
HY`Yd` \cbY`9I`HYfbU`Gi`ddcfhcb`-`,`)`"``"``%cf`Ya`Uj`h`Ya`icb`YI`HYfbU`HY`hgi`ddcfh4`i`bgk`"YXi`"Ui`""Gi`ddcfh`
 \ci`fg`UfY`,`.\$\$Ua`-`-%\$. \$\$da`icb`k`YY`XUmg`UbX`-`.\$\$Ua`-`). \$\$da`icb`k`YY`YbXg`f1`*)`XUmg`U`mY`Uf2`"≠mci`
UfY`i`bUV`Y`hc`gi`Va`]hmc`i`f`Ugg][`ba`Ybhi`Xi`Y`hc`U`ZU`i`h`k`]h`Hi`fb]h]b`mci`ia`Um`Udd`m`Zc`f`Ub`YI`HYbg]cb`z`Vi`hmc`i`
a`i`ghf`Y`h]b`mci`f`h]W`Y`hbi`a`VYf`Z`ca`9I`HYfbU`Gi`ddcfh`f`U`cb[`k`]h`Ubmc`h`Y`f`f`Y`Yj`Ubh`Xc`W`a`Yb`hg`k`hc`
]b`Wi`XY`Ug`Yj`]XYb`V`hc`gi`ddcfhmc`i`f`YI`HYbg]cb`Udd`]W`h]cb`"≠mci`Ya`Uj`9I`HYfbU`Gi`ddcfhmc`i`k`]`
Ui`hc`a`U`h]W`m`f`Y`W`j`Y`U`h]W`Y`hbi`a`VYf`z`Vi`h]Z`mci`HY`Yd` \cbY`mci`k`]`b`Y`Y`X`hc`gd`Y`W`Z`W`m`Ug`_`Zc`f`cb`Y`"
Hi`fb]h]b`U`gc`d`fcj`]XYg`i`d`XU`HY`g`cb`h`Y]f`gm`gh`Ya`ig`h`U`h`g`cb`Hk`]h`Y`f`"

;`Yb`Y`f`U`m`z`Ugg`Y`gga`Yb`hi`U`g`_`g`a`i`gh`V`Y`gi`Va`]h`Y`X`Y`Y`W`f`cb]W`m`j`]U`Y`]h`Y`f`Hi`fb]h]b`cf`U`A`cc`X`Y`
Ugg][`ba`Yb`h`i`h`]b`gh`U`b`W`g`k` \Y`f`Y`h`g`]g`b`ch`d`c`gg]V`Y`z`]h`k`]`V`Y`g`h`U`H`X`cb`mci`f`W`ci`fg`Y`g`A`cc`X`Y`g`]h`k`]h`
U`HY`fb`U`h]`Y`gi`Va`]gg]cb`XY`h]g`"

:`cf`]b`Z`fa`U`h]cb`cb` \ck`hc`gi`Va`]h`Ugg][`ba`Yb`hg`cb`]b`Y`j`]U`A`cc`X`Y`. \`h`d`g`#`gh`XY`b`h`i`bgk`"YXi`"Ui`#`ck`!
gi`Va`]h`Ugg][`ba`Yb`h`a`cc`X`Y`"

5 WUXYa]W< cbYgmiUbX`D`U[]Uf]ga

D`U[]Uf]ga `]g`i`g]b[`h`Y`k`c`f`X`g`c`f`]X`Y`U`g`c`Z`c`h`Y`f`g`i`U`b`X`d`f`Y`g`Y`b`h]b[`h`Y`a` `U`g`m`c`i`f`c`k`b`" `#`W`U`b`h`U`_`Y`a` `U`b`m`
Z`c`f`a`g`Z`Z`c`a` `X`Y`]V`Y`f`U`h`Y` `W`X`Y`U`h]b[`h`c` `U`W`W`Y`X`Y`b`h`U` `m`i`W`c`d`m]b[`Z`c`a` `U`g`c`i`f`W` `k`]h`c`i`h`U`W`_`b`c`k` `Y`X[`Y`a` `Y`b`h`

I`B`G`K` `[`f`c`i`d`g`d`U[]Uf]ga `]b`h`c` `h`Y` `Z`c` `c`k`]b[`W`U`h`Y`[`c`f`]Y`g.

- i bXYfghUbx'mci f'f][\hg'UbX'fYgdcbg]V]h]Yg'Ug'U'gh XYbhUhl BGK
- VY'Uk UfY'cZd'U[]Uf]ga ž'Wcdmf][\hž' BGK 'Gh XYbh7cXY'cZ7cbXi W'Ubx'5Ww'dhUV'Y'I gY'cZ
I BGK '⇒H'F Ygci fW'g'Dc`]Wm
- VY'Uk UfY'cZh'Y'ghUbxUfXg'cZVY\Uj]ci f'YI dYW'X'cZYj Yfmcby`]b'h'Y'I BGK 'Wca a i b]m
- `cWJh'gYfj]W'g'UbX'j]bZcfa Uh]cb'UVci hl BGK 'UbX'I BGK '@]VfUfm

Gca Y'cZh'YgY'UfYUg'k]`VY'ZJa]]Uf'hc'mci ž'ch'Yfg'k]`VY'byk " "; U]b]b['U'gc`]X'i bXYfghUbx]b['cZU`h'Y
fY'UH'X'UgdYW'g'cZ9@G9'k]`Y'd'mci 'a U_Y'h'Y'a cghcZmci f'gh X]Yg'Uhl BGK "

[\hd. #gj V'YWf i \]XYg" \]VfUfm'i bgk "YXi "Ui #'\]gY#JVci h' \]gY](#)

