



# ARTS1450

Wc fm 7 \ ] b Y g Y ' 5 ' Z c f ' B c b ! 6 U W \_ [ f c i b X ' G h i X Y b h g

HYfa ' C b Y ' ' # ' & \$ % -

GWcc ``cZ< i a Ub]hYg `UbX `@Ub [ i U[ Yg ``# `I BGK ``5 frg `UbX `GcWU ``GWYbWg





7ci fgY'8YHJ)`g

7fYX]hDc]bHg`\*`

Gi a a UfmicZh\Y'7ci fgY

Gi VYWhi5fYU.'7\]bYgY'Gh X]Yg

H\]g`]g`Ub`]bfcXi Wc fmWci fgY`]b`A cXYfb`GHUbXUFX`7\]bYgY`Ub[ i U[ Y`fA UbXUf]bE`Zf`bcbl`VUW\_[ fci bX  
gdYU\_Yfg`"H\Y`Wci fgY`k`]`ghUfhk`]h`VUg]WWca dcbYbHg`cZ7\]bYgY`Ub[ i U[ Y.`h\Y`b[ k[ ž`UbX`WXUfUWYfg`  
#ik`]`HYUW`mci` \ck`h\Y`7\]bYgY`Ub[ i U[ Y`k`cf\_g`Vch`[ fUa`a`Uh]W`mUbX`]b`gcW]c!W`h`fU`Wc`bHY`hg`gc  
hUhmc`i`ghUfhc`XYj`Y`cd`mci`f`]b[ i ]gh]WUbX`Wca`a`i`b]W]hj`Y`Wca`dYH`bWYg`"H\Y`Zci`f`Ub[ i U[ Y`g\_]`g`!  
@]ghYb]b[ ž`GdYU\_]b[ ž`FYUX]b[ ž`UbX`k`f]h]b[ `!`Ufy`]bHY`[ fUHY`h`fci`[ \`ci`h\Y`Wci`fgY`"5`W`h`fU`Uk`UfYbYgg  
]g`U`gc`Vi`]h]bhc`h\Y`Wci`fgY`"H\Y`fci`[ \`Ub[ i U[ Y`gh`Xmimci`k`]`XYj`Y`cd`Ub`]b`Zca`YX`i`bXYfgHUbX]b[ `cZ  
7\]bYgY`]b[ i ]gh]WVY\Uj`]ci`fž`gcW]YmiUbX`W`h`fY`"

H\]g`Wci`fgY`]g`U`VY[ ]bbYfg!`Yj`Y`Ub[ i U[ Y`Wci`fgY`"5`gh`XYbHg`k` \c`\Uj`Y`\UX`gca`Y`Yi`dYf]YbW`k`]h`h\Y`  
`Ub[ i U[ Y`Z`Y]h`Y`f`Ug`U`\Yf]U[ Y`Ub[ i U[ Y`cf`h`fci`[ \`d`fY]`]ci`g`]bgrfi`W]cbž`a`i`gh]Z`]b`h\Y`d`UW`a`Ybh  
ei`Ygh]cbbU]fY`Uj`U]UV`Y`Uh`h`hdg`#A`U`"UfHg`i`b`gk`"YXi`"Ui`#gh`XYbHg`#Wci`fgYg#Ub[ i U[ Y!`d`UW`a`YbHg`"Mci`k`]`  
bchVY`d`Yfa`]h`Y`h`c`Ybfc`]b`U`Ub[ i U[ Y`Wci`fgY`h`Uh]g`h`c`YUgm`Zc`f`mci`"Z`h`]g`c`WV`fgž`mci`k`]`VY  
fYei`Ygh`X`h`c`W`Ub[ Y`mci`f`Ybfc`a`Ybh`"

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

- %`8Ya`cbgrfUHY`U`gci`bX`\_bck`YX[ Y`cZd]bm]b`UbX`WXUfUWYfgž`dfcbci`bW]b[ `k`cfXgž`UbX`k`f]h]b[  
WXUfUWYfg`k`]h`Wc`bZ`XYbWY`"
- &`GdYU`\_k`]h`fYUgcbUV`miUWV`fUHY`dfcbi`bW]U]cb`UbX`]b]bcbU]cb`i`g]b[ `]g]a`d`Y`gYbHY`bW`d`UHY`fbg  
k`]h`]b`h`cd]Wg`fY`UH`X`h`c`gi`fj`]j`U!`Yj`Y`Ub[ i U[ Y`i`gY`
- '`"5dd`m`Wca`a`i`b]W]hj`Y`g\_]`g`UbX`ghfUHY`[ ]Yg`h`c`Wca`d`YH`j`Uf]ci`g`Ub[ i U[ Y`hUg`g`]b`]ghYb]b[ ž  
gdYU\_]b[ ž`fYUX]b[ `UbX`k`f]h]b[ `"
- (`"5f]h]W`UH`Y`Ub`Uk`UfYbYgg`UbX`i`bXYfgHUbX]b[ `cZUgdYW]g`cZ7\]bYgY`]b[ i ]gh]WVY\Uj`]c`fž`gcW]YmiUbX  
W`h`fY`"

HYUW]b[ `GhfUHY`[ ]Yg`

@Ub[ i U[ Y`]g`VYghUWci`]fYX`h`fci`[ \`U`\c`]gh]WUbX`]bHYH

## 5ggYgga Ybh

5bmch\Yf'fY'Yj Ubh]bZcfa Uh]cb'k ]''VY'dfcj ]XYX'cb'hY'Wci fgY'a ccX'Y"

## 5ggYgga YbhHUg\_g'

5ggYgga YbhHUg_	K Y][ \h	8i Y'8UH'	Gh XYbh@YUfb]b[ Ci hWta Yg'5ggYggYX
A ]X'hYfa 'hYgh	&\$i	K YY_ '* f&! \f'hi hcf]U'Ł	%ž
: ]bU'hYgh	&\$i	K YY_ '%fA cbXUm@YVh fYŁ	%ž ž(
7cbh]bi ci g'UggYgga Ybhg'	() i	7cbh]bi ci g'UggYgga Ybhg K YY_ " !K YY_ '%\$	%ž&ž
; fci d' ]bhYfUW]j Y'dfc YVh	% i	K YY_ '-	%ž&ž(

## 5ggYgga Ybh8YhU]`g

5ggYgga Ybh% 'A ]X'hYfa 'hYgh

GHUfhXUH'. Bch5dd']WVY

8YhU]`g. '7ca dfY\Ybg]j Y'hYghcb'hY'žfghZk 'WXUdhYfg'f%) '\ci fgŁ': YYXVUW\_j ]U']bX]j ]Xi U'Wta a Ybhgž fi Vf]Wž UbX']bi WUgg'X]gW gg]cb''''

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

5XX]h]cbU' ]bZcfa Uh]cb'UVci hH\]g'UbX'ch\Yf'UggYgga Ybhg'k ]''VY'dfcj ]XYX'hc'Wci fgY'a ccX'Y"

Hi fb]h]b'gYh]b[ . H\]g ]g'bchU'Hi fb]h]b'Ugg][ ba Ybh

5ggYgga Ybh&. : ]bU'hYgh

GHUfhXUH'. Bch5dd']WVY

8YhU]`g. 'H\]g']g'U'Wta dfY\Ybg]j Y'hYghcb'hY''UghZk 'WXUdhYfg'f%) '\ci fgŁ]g]bW'hY'a ]X]hYfa hYgh'Gh XYbhfYVW]j Y'U'a Uf\_ UbX'W]b'Wcbgi 'hH\Y'hYUW]b[ 'ghUZZc'f'ž fH\Yf'ZYXVUW\_'H\]g ]g'hY'ž]bU' UggYgga YbhZc'f'UH'YbXUbW' di fdcgY''''

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

5XX]h]cbU' ]bZcfa Uh]cb'UVci hH\]g'UbX'ch\Yf'UggYgga Ybhg'k ]''VY'dfcj ]XYX'hc'Wci fgY'a ccX'Y"

Hi fb]h]b'gYh]b[ . H\]g ]g'bchU'Hi fb]h]b'Ugg][ ba Ybh

5ggYgga Ybh' . '7cbh]bi ci g'UggYgga Ybhg

GHUfhXUH'. '7cbh]bi ci g'UggYgga Ybhg'K YY\_ " !K YY\_ '%\$

8YHU]`g. 'H\]g`]bWi XYg" 'I '+i 'cb!`]bY`ei ]nnYg`f%\ci f`YUW\łZ`U`gdYU\_]b[ 'hYghf%) i łZ`Ug`k Y``Ug`WUgg  
]bhYfUW]j Y`UW]j ]hYg`f-i ł`H\Y`GdYU\_]b[ 'hYgh[ ]j Yb`]b`h\Y`Z]fgh\U`ZcZ`h\Y`gYa YghYf`hYghg`gh XYbhgf  
Wł a UbX`cZd]bm]bZ`]bWi X]b[ 'dfcbi bW]U]cb`UbX`hcbYg`f( \$`gYWłbXg`dYf`gh XYbhłZ`UbX`VUg]Włłbj YfgU]cb  
g\_]`g`fU`&ła ]bi h`X]U`c[ i Y`h`VY`gi Va ]hYX`cb`]bYł": YYXVUW\_] ]U`]bX]j ]Xi U`Wł a YbhgZ`fi Vf]WłUbX`]b!  
WUgg`X]gW`gg]cb""

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

8YHU]YX`]bZłfa U]cb`UVci h`h]g`UggYgga Ybhk ]``VY`dfcj ]YX`h`h\Y`Włi fgY`a ccX`Y"

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

5ggYgga Ybh( . ; fci d`]bhYfUW]j Y`dfc`YWł





F Ygci fWg

DfYgWf]VYX`F Ygci fWg`

7ca di `gcfmHYI hVcc\_g.

;`fWdSfW 5Z[ WeWFWj fTaa] ž@Yj Y`%DUfh%fG]a d`]ZYX`7\UfUWYfg`J Yfg]cbŁ ( h`9X]hcb

;`fWdSfW 5Z[ WeWI ad]Taa] ž@Yj Y`%DUfh%fG]a d`]ZYX`7\UfUWYfg`J Yfg]cbŁ ( h`9X]hcb

VmHUc!Wxi b[ `MjC`UbX`M Y\i U`@] žUbX`di V]g\YX`Vm7\Yb[ / Hgi ]"ž5j U]UV`Y`Zca

I BGK `6cc\_g\cd"

.

.

F YWca a YbXYX`F Ygci fWg

F YWca a YbXX.

hWdSfW 5Z]bVgW5ZSfWfK ad]Vaa] ž@Yj Y`%DUfh%fG]a d`]ZYX`7\UfUWYfg`J Yfg]cbŁ

VmHUc!Wxi b[ `MjC`UbX`M Y\i U`@] žUbX`di V]g\YX`Vm7\Yb[ / Hgi ]"ž5j U]UV`Y`Zca

I BGK `6cc\_g\cd"

.



Gi Va ]gg]cb`cZ5ggYgga YbhHUg\_g

Gi Va ]gg]cb`cZ5ggYgga YbhHUg\_g

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

≠mci`YbWci bhYf`U`dfcV`Ya`k`Yb`U`H`Ya`dh]b[`hc`gi`Va`]hmc`i`f`Ugg][`ba`Ybh`h`fci`[`\`Hi`fb]h]b`z`d`YUgY`  
H`Y`d`cb`Y`9I`H`fb`U`Gi`ddcfh`cb`-`,`),`'`,`'`,`%`cf`Ya`U]`h`Ya`cb`YI`H`fb`U`H`hgi`ddcfh`4`i`bgk`"YXi`"Ui`"Gi`ddcfh`  
`ci`fg`UfY`,`.\$\$Ua`-`%\$.\$\$da`cb`k`YY`XUmg`UbX`-`.\$\$Ua`-`).\$\$da`cb`k`YY`YbXg`fI`\*)`XUmg`U`mY`UfL`≠mci`  
UfY`i`bUV`Y`hc`gi`Va`]hmc`i`f`Ugg][`ba`Ybh`Xi`Y`hc`U`ZU`hik`]h`Hi`fb]h]b`mci`a`Um`Udd`mi`Zc`f`Ub`YI`H`bg]cb`z`Vi`hmc`i`  
a`i`gh`f`Y`h]b`mci`f`h]W`Y`hbi`a`VY`f`Z`ca`9I`H`fb`U`Gi`ddcfh`f`U`cb[`k`]h`Ub`mc`h`Y`f`fY`Yj`Ub`h`Xc`W`a`Y`b`hg`L`hc`  
]b`Wi`XY`Ug`Yj`]X`Y`b`W`hc`gi`ddcfh`mci`f`YI`H`bg]cb`Udd`]W`h]cb`≠mci`Ya`U]`9I`H`fb`U`Gi`ddcfh`mci`k`]`

## 5 WUXYa ]W<c bYghmiUbX`D`U[ ]Uf]ga

D`U[ ]Uf]ga `]g`i g]b[ `hY`k cfXg`cf]XYUg`cZchYfg`UbX`dfYgYbh]b[ `hYa `Ug`mci f`ck b" `hWUb`hU`Y`a Ubm  
Zcfa gž Zca `XY`]VYfUHY`WXYU]b[ `hc`UWV]XYbhU`mW`dm]b[ `Zca `U`gci fW`k ]h`ci hUW\_bck`YX[ Ya Ybh`

I BGK `[ fci dg`d`U[ ]Uf]ga `]bhc`hY`Zc`ck ]b[ `WUHY`[ cf]Yg.

7 cdm]b[ .`i g]b[ `hY`gUa Y`cf`j Yfmg]a ]Uf`k cfXg`hc`hY`cf][ ]bU`hYI hcf]XYU`k ]h`ci hUW\_bck`YX[ ]b[ `hY`  
gci fW`cf`i g]b[ `ei chU]cb`a Uf\_g" `H\]g`U`gc`Udd`]Yg`hc`]a U[ Ygž UfhUbX`XYg][ b`dfc`YWgž`Ug`k Y`Ug`  
dfYgYbhU]cbg`k \YfY`gca YcbY`dfYgYbh]g`UbchYf`g`]XYUg`cf`k cfXg`k ]h`ci hWYX]h`

hUddfcdf]UHY`dUfUd`fUg]b[ .`7`U`b[ ]b[ `U`ZYk`k cfXg`UbX`d`fUgYg`k`Y`a cghmiFYhU]b]b[ `hY`cf][ ]bU`  
ghfi W`i fY`UbX`#`f`dfc[ fYgg]cb`cZ]XYUg`cZ`hY`cf][ ]bU`ž`UbX`]bZcfa U]cb`k ]h`ci hUW\_bck`YX[ Ya Ybh`H\]g`U`gc`  
Udd`]Yg`]b`dfYgYbhU]cbg`k \YfY`gca YcbY`dUfUd`fUgYg`UbchYf`g`]XYUg`cf`k cfXg`k ]h`ci hWYX]hU`bX`hc`  
d]YW]b[ `hc[ YhYf`ei chYg`UbX`dUfUd`fUgYg`]bhc`U`bYk`k \c`Yž`k ]h`ci hUddfcdf]UHY`fYZYfYbW]b[ "

7 c`i g]cb.`k cf\_]b[ `k ]h`chYfg`Vi hdUgg]b[ `cZ`hY`k cf\_]Ug`U`dYfgcb`g`]bX]j ]Xi U`k cf\_]7 c`i g]cb`U`gc`  
]bWi XYg`dfcj ]X]b[ `mci f`k cf\_]hc`UbchYf`gh`XYbhVYZc`fY`hY`Xi Y`XUHYž`cf`Zc`f`hY`di fdcgY`cZ`hY`a



