



AUGUST 1986

PAGI

VOL. 8 NO. 11

CONTENTS

EDITOR IN CHEE & DESIGN CHECTOR: BOB GUCCIONE PRESIDENT KATHY XECTON CONTON PARTICE ADCINGO: CHEMPA AL MARIE DICK TORGE! GRAPHICE DIRECTOR PROVIDE CHEMPO AND DRECTOR ANY SERGE.

CMMBUS	Contributors		1
COMMUNICATIONS	Consuperdence		1
FORUM	Married Spacetight		1
SPACE	Deaun Topography	Doug Stewart	1
BODY	Canoer Care	Robert Maselo	1
EXPLORATIONS	Naturalist Flotrest	Karan Fradold	1
ARTERDIAL INTELLIGENCE	Compact Dises	Phoese Hoten	
CONTINUUM	Data Bank		1
AFTER THE SUN DICS	Future Universe	T.A. Hoppenhorner	
A PLAGUE CALLED VIOLENCE	Crase and Medicase	Shexy Baker	- 4
THE LICHS ARE ASLEEP THIS NIGHT	Picton	Hoyerd Weldrop	-
TUNNEL VISIONS	NASA Pictoral	Dove Sobel	
FIRE CATCHER	Fiction	Richard Kedrey	
CHUCK YEAGER	Interview	Paul Bagne	- (
SUBURBAN CHIMP	Arvinal Studies	Eugene Linden	- 1
THE MICHOBE WARS	Medical Art	Leah Wellsch	- 1
ANTIMACTER	UPOs etc		
PHENOVENA	Cherrobyl Cloud		10



Migraul Radercich and disegulay hart coleocated on this particle, convisionistic by Opel Gloy, Jagged, saw Joff passes Shoopin a praint passes through a praint process of color cyan imagenta, yellow and what is the four this passes of the color cyan imagenta, yellow and what it called the color open imagenta.

Conting States, with a physician series on signature. A claiman is grain Allection to review with the MODINE for their for 1990 miles and classappe plane in 1991 for the size of their contribution. The MODINE is all and paging as the Modine in Modine in 1992 for their size of their contribution in 1994 for their size of their contribution in 1994 for their contribution

Charles Merryinger Jr



#### FIRS

· Every patient '> has a story to share thatbalged him heat.

So-called privative modicine offer

#### CONTRIBUTORS

#### 









and it buttle stopper services in report successors review (ether feeingless convent seconds is the a component of buttle of the component of buttle of the component of pagestern of violence—spreading fill composition of violence—spreading fill which communities And Allesting fill cheeks for Dealase Correlo have deviced of the log titles of Americans. In Arrisque folial of Violence (page) in Arrisque folial of Violence (page)

In a Fragua Costo Vestifor (1979)
In a Fragua Costo Vestifor (1979)
In the Vestifor (1979) In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)
In the Vestifor (1979)

acts diguised as accidents. "On the very day two assigned this sooy a man in my neighborhood beet its wife to death and the ranged hisself says Baker." It's linghtoning to think about violence being contagious. But organic secencing seek the hope that there might.

Scientists must often question the wackly of their research methods. When Eugane Lindon wicte Apies. Men and Language in 1973, for example, he was a

her invariant response. Note the Direct (page 36) is an design on the late of the unwards black of years from the serversed by such in-practise as Friendin Dyron and Pallas Galarand Wate 7 A. Hepsonharms touckes on the cod the will chill us the black holes that will are will be used to tack holes that will be come to track years and any support the lang again counts that the borron to may page to counts that the borron track page as the serverse and the lang again counts that the track page 1 and the serverse track page 1 and the lang the Company California Fast should all the Company California Fast should as the California California California Fast should as the California C

Times Bookel, "But in light of modern the control of the control o

system to the requirement property of the same to the

y led dipair white Horizon Audity Tries by led dibut in American megacines the month with. The Condier (goge 60) in the flushic tale of opporage a military computer wazerd and optomited same begins to question his successful career kadwys list most (Moscophige (Bertiey) will be published in early 1997.

foreign investers. And in the pational The Manches Mars (page 76) oned Carl Planting encloses his otherworld y water of the veet weight by his invester skylatin The pothasil Turned Visions' (page 55) illustrates NASA's wind survivir when the profess pain planted to that one the profess pain planted to that All under sarulated conditions. A test risk invested Cardo-Visions is the profess of the profess of the profess of the A test risk invested Cardo-Visions is

A lest pick harred I Chusch histoper is been kinwer his brailwarg the sound komer in 1947 ushering in the Age of Assurasian Acid mit are morth interview (saga 196) ha wills China combucior Paul Begre what's wong with MASE. Town though the practically lives dave the shoot from in cratinen. Caditional, as dishost to cost up with the received by dollow mark. Sugar the shoot shoot and the shoot properties of the shoot of the china did best flying and breeding speed records in wreath this seque bemendous seventh and skill. "OO."



## LETTERS

#### COMMUNICATIONS

Who Loves New York?

I have set read the results of the when lending portest [May 1996]. Agreed York But that a true of other places that

So what I the United Nations is in New York City? Creative people have always tion, but politicians are like a bunch of seriously doubt that intelligent extratornes

zations-as the site for an alon lansing it is a safe place in the universe. New York

Don Beckett Mohave Valley, AZ

Barragarising with the Bushmers people into agistion, the Namiouri their last reluge. What insistice! I hope out contribution to the Kung San Foundation

I found ' Painkiller or Paralyzer?' [Body. May 1996) to be interesting and informaadministered by 'ambiliarion drivers'

for these years. Ambulance drawn are not permitted to administer encorphin antagonists or any other drugs. Contrary is not symptymous with a parametric, who

is a highly trained and educated health-John K Meuro EMT-P

need for continued research on and protection of the Alnean gonits I Mountain Warnes 'Engiretoris May 1988) Dian Fossey subservations of those animals in their regions habitat will not be lorgotten 1

have won the battle.

Black Diamond, WA

Author, Author You did a great interview with John Money (April 1986). Brown to the men, He's trying neplected to name the publishers of

Editors' Note: The Destroying Angel was and Lowernage was cultilished by lower.

ton Publishers (New York). Both are municiples of mysor bookstores it's Aust a Big. Dirty Snowball

best report I've read about these projects C'Halley's Hurt Feelings, Continues properties are proliferating and need a

> Charles Wesley Orton Committee to Combat Compt Apathy Carishad CADO

CMN

### 

#### Upward Bound?

The poster commemorating our seven

provide a venety of scholarships to aspring

Maryland State Teachers Association

gone Recent crews-triack Driental

your May wave delighted at seeing

least say in what happens to our space foresight and sense of excrement that propeded NASA to its ratify supplement.

Gloria M. Sanchyur

left are courtesy of NASA/Visions DO



#### WATER MAPS

#### SPACE

By Daug Stewart

or years oceanographers devel longingly at those weather seastoceans Unal recently information about the oceans dame from random sourcesbecause although looking at the atmosof are allows you to preciot the weather TOPEX for constructionary expension

ographes a smallte of their own. Carled crescross the open for three years.

using radar to reserve the precise. being of the seas opeanographers will

upstate their readings every ten days that power climatic changes. A notorious coast of South America. Every two to sover years FI N/Yo swells with power and potern in 1982 and 1963 a caused wide rain triggered mudskdes in California to unusually strong El Niflo is occurring

problem. To the satellife's rader eve El

None will starryf out like a storm ploud in a clear sky The key is the connection between the current and the surface. the topography of the ocean "The water Wursch an MIT oceanographer who helood plan TOPEX. If we know how larg Execute Newton's laws of motor, where

batting. The most immediate payoff will

better understanding of ocean currents provide a tip-off that a particular fesh

TOPEX will be noticing more than the helis and valleys caused by currents The mountains and valleys of the sessioor teell pul the ocean's surlace into matchocean surface is flat too, except for introduced mass. The water is free to mountain ' Deep underses trenchés have an absence of mass, so water tends to flow to either sick: According to March, the

By interpreting these contains, scarriets surveillance is motivated by the sheer avof science. A few irregnetive Purtagon repries of enemy submarines. TOPEX

looking for sub repoles is TOPEX's status into space on a non-NASA moket TOPEX was conceived as a rort Fronch, U.S. effort. The Underl Stress will

provide the satelita, the Franch will provide the rocket, and both sides will collaboration, you can't say, We're only sense "The French offered to save us which is the cost of a shuttle launch," save

Marsh Marsh himself has worked hoppily establishment was more open-minded about using European expertse and international partnerships "El Niño mey be a Paorlo phenomenon \* he sa truit it affects the whole world "OO



Assets the French connection for TOPEX

#### INTERNAL ALLIES



By Robert Masello

very year in the ringship Wisagainet across (the Net Cras) 61 4 billion in the example of the New York New York (the New York

signorous measush hospitals Lad by Moroscar for all the Lad by Moroscar for all the Lad by Moroscar for CS Good researches have have a CS Good researches have have a CS Good researches have have a CS Good certification or agree. The Hospital and capital and have a been placed and the companion of the companion of personnalized, or onthis was researched rough resetted with three michal units of the copy and a fine expository of segmentary and companion of personnalized for another was the copy of personnalized for a fine such as described to the three michal and described to the copy of the copy of personnalized for beautiful and the copy of the copy

Colonia del paleità en l'acciono de l'acciono de l'acciono del distributione dei mais subsu espociarente di controllare del Cert I acciono del controllare del Cert I acciono del controllare del Cert I acciono del controllare del controlla

off invading visues. When this lympholine was obupled with the interhetion again, the carker potenty of the interhetion was restored. What the superiorse researched might shall be 1 do on the Own or if given in misselve desceit.

The onspecs carrier shall this with 100 fee in style your in clinical this with 100.

The rate year is cleared with which will not been and in the been dark in a finish self-angle from leve cancer whose previous theorems as had falled and the had falled with the self-angle dark in the self-a

malgner() hardened king under the elen on her threat: The sale effects were mineral. After the

e a fever for three to five hours. Anticyretics (here drugs) easily controlled it. What was more important. The drafthable or represented of systamic dysplores began within 56 hours of theil his rejection. Patients looked better. But a appective improved, and they were able to communicate more easily. Their discretions

There were and criterian several mayer
subsiding profession CH-1 is carried work.

I appeal sold pursual of the abstraction of
converted to the abstraction of the
converted to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to the
converted
to t

wide to producely in which will be a proportion and and the proportion which are becomes previously fails. The copy of the control produced and the copy of the Ball Andrews Chroni Installa. That these bregisters are an entirely and the copy of the Ball Andrews Chroni Installa. That these bregisters are are entirely and the area of the copy of the copy



Colular warfare Will GHT zap caroar?

Even with the recent advances in genetic engineering which allow us to produce in quantity such articorare against as interteon, interload 2, and CH-1 (all known as biological response modifiers. continuos on man.

#### THE ISLE OF DARWIN

## EXPLORATIONS

By Karen Freifeld

a almost michight when Jim Brae forest—a jungle of two paks dripping After about helf a mile we turn off. Then

organize lighter gets out and beams two more larger ones. 'That's the mana

We get back in the truck and beam the within a bit. Insules again and southers green eyes of two chocolate fallow door

Were on Little St. Skropes Island 0.SSO. a small travier island off the coast of Georgia Like other socketed islands Little preside of the previous are street, and a stand ville. Florida, drove 75 miles to a dock maze of tidal creeks that cut through

over otters scamper stong the merch on LSSI's 10,000 acres (frame fourfrs as large as Manhestari) is small causer of house the horns from Clark, a Toxas lancham, hand over the freplace. A sa-foot damonoback ratter den is printed

and a 1908 vicinum of LSSI (Practically It all belongs to the Berokhamers, a into a private hunting reserve and viscators Theresgiving and Christmas, but in the mid-Severage, they decided to offset

toward-or many from-widths ("Look for the tree stump that's giving you the finger and stop," says Jim. 'A charrondouck satter lyss in there is Located on the Eastern migratory

arricing bird-watchers. More than 200 helf that many in a single day. At clask Jim takes me, along with beckers

Charle and Natalia Hubblad of Needham, Massachusetts, out to Myrtie

Pond, the largest fessiwater pand on the pland Charle and Libroculars close at hand on in the back of the parkup smearwhite bird with long plumes darting from There's an arrings sowing around " he selds, moreores later. 'Called a snakebird, 500' (Like a snake, the antenge

the water. Jim later combine ) continue at Myrife Pond, interminated rail a bod more often heard from seen. We costs, and both great and snowy equals here Ard says Jm. There's a monder

alligator—eight, ten faet—that I was at the The next day Jim and I coul not for muliet to bear the crab trap. Jun holds the When he rule it rul. he's already netted

a fish Weeks Jim Isn't surprised by his why a lone Toxas longhorn dow is making The Berntmarners raised cartie on the marsh and martie brush in groups of two

with helf a closen horses (four ridable) Jim gets up at 6 x w and drives for

hours to led the horses for our early marring ride past the ceks near the ladge through the tech march The Bookheamer. want to make the island self-sustaining a profit it will certainly not be the last parks overcrowded Little St. Simons will



#### DISC-O-TECH

# ARTIFICIAL INTELLIGENCE

By Phoebe Hoban

re encycloped a of the future will take up a lot lose room than the t will have extres such as voice over remotion, music, and soll-of not movingfor ristance is picture of the composer and

sechnology.-- one with sound, organics photographs test and eventually moving disks), 500 000 typed pages (about a 20-

greization from 500 H c to the present..... consistency of London. With the party different area. Chappers or Shakespeares time or even London during different time zones, of the while wowerd the pay looked in each era. "It is like point

Although The Record Group a intersective KnowledgeSet has marketed an electronic dive that connects to IBM PGs and competities. With this system, users can or topic. It takes about a second for the perdes in much the way you'd expions a

Although the Groker encycloped is

the discs will play on machines that also discs. Neatly every major consumer:



The next compact dust revolution. He going to the movies with a steaming wheel QMN



#### 

#### TEST ARLISE

Intro Dist Ajas izma women insulgano film in michani dhe sativi protony a provin i filmkomprane i nigo um film insulgano sativi protony a provin i filmkomprane i nigo um film insulga, went bibesti attrava, filmkomb dis-politica i nigo silaya i nigo uma harina i filmkomprane i nigo uma harina i nigo uma nigo uma harina i nigo uma nigo

Code Anguine Pales Anamery.

So Integrate in continue and an other data can be a finished in a continue to the anamery of the single or in a continue to the anamery of the continue to the co

paties a proadertial commission has suggested that these superteds be used to help win the war on drugs (flut blind refered or accentate tests alone to detect drug proteems is creating Amerous nevertilepidemic test abuse.

Contingence of the most common test used by make companies of the sound common test used by make to sound test used to sound test used test

when they were wrongfully accused of doing occurre. The tests may also detend such drugs as manipure that other used weeks earlier or stay in the body for long period on longer influence behavior for ownings, a pole of the positive for PDP (angel dust) three years after the charge-field on the quarters a long.

Metal apportient single lesis do not give the fellot yof drost point as an exercise to diagnose and resistence? Unever and blood do not loque, and and otherwiren? Unever and blood do not loque, and an exercise to the second of the second of

Rankolf K. Siegel is psychopherracologist, is on the faculty of the UCLA School of Medicine Into was a consultant to the President's Commission on Organized Chrise.



## 



SAILING TO

ALPHA CENTAUR
The rist scole profes to another star may be shall make that may be shall make all so should be shall make all so should be shall make the shall be sha

mercercuit funct a combination could be a sample propulsion would be a sin grorowave beam in Earth orbiting so satelite. The craft fits be auroched.

cond the orbit of More by werbginel nother bocalies a recreasize beam to sed on the sail by a 1 occareter wide lane posired between Earth and

travery by ghratin pressurusing the call the earner way stretched wends pushled and the call the call should be called the call the call should be called the called the called such diseases allow used to call should be called the called t sake to bly through the of Contrash spletter. Stewenergized meah cafe to bear the called block to Cardy, whose computer would burn the humbon photos to decrete was acted upon a your lar or safes Sourvego & tourn's Sourvego or ten-ful forman and the properties and "Physically who to baild Stewness or ten-ful format and the properties we nearly washed to "nistances" and the or it was not be properties and or the called of the properties of all increases with a wararchitecture.

CATTALK

A University of Florida, angular studying the sour of tigers, floris and other targe fellows hopes to sor day compile a veloning dio angue, of call talk

19

ny Hollen belevos tete may be able to ually create computerteled souths that will them to talk to ammals ag cats he studies messages such as 'stay away from my meal' Whate he does not think anarus's dovelop formal language which he defines as 'the aspession of ab

language which he defines as the expression of ab street thought. This expression that do "engage in basic communication". Hoters notes that singler and feer are two amotions you can isoognize in the correspond of most animals.

expressors of most armals, including markeys and obpriess." He choose to work with the large cess at Wol. Agress Hamamani, Villago in Flancia, a travel for ammenta that would otherwise few been put to challful because its inspection hes been dange on east communic at Dr. Messa should for add.

When amount found out that mount an important has pure, which norm of the log cold are supposed to do 1 Holden layer Hollen layer Hollen layer Hollen layers the sounds care make during varies between such as the layers himself, illustry a welcoming sound. The mountain layers provided the mountain layers equivalent pages "and various in cases" recluding layers.

rowing, and making.

The lay is what the sundo mean? The lay is what the sundo mean? The explains i you get how care.—one has see and one curring any — as that anything in executions of those sorts or means sorted ing a mode comment of the service of the servic

were made operated the could improve the status be well operated the status be were man and animals."

—After Maure Monar and operated the status be well operated the status be were man and animals."

—After Maure Monar and operated the status op

a helo." —H G Wells



-Bé Literen





## 

### INFRASONI

i our captive and with-dephare habitati, neckong Konya s Amboseli Park. Bi speeding up his playlact the recordings they work able to here a sense of disent cash swing the toter seconds each for up to sen minutes at a time interior calls that could till acrine 12 miles through to shrubs, and still green

If the Holizachina have violed surcovand inhabition communication among elephanes, it could explain much about the armate behavior such self-the way elephant groups miss apart loss and another mystem outly mobiline and until 31 face danger. To be true communication.

#### LASER PORESTRY

do you measure the n a stand of treet? standard method is to bear to flow to your forces to measure 5 tocent of the trees subs are fed into outer, which provides male of how much

mass or new much can be harvested a twe protein range inlike tessary the costs ormous. An inventory a tew trundred acres we can be done simply no can be

The data are fed into a la computer on the ground that generates a line draof the less From the prod as possible to determin height and crown diamet of the lines.

pleamenters you can oscinion.
The amount of wood in a
feen" says Plobert Maggio,
project loader and acostrant
professor of licred scence
at Texas A&M's College
of Agriculture, whore the lens
method was developed.

ry Maggio admits that it will be several years before will be sufficiently accurate to become operational



spream murrousing. These may be a subsection of pacity wirestooder circostake the runbling of distant shander

bing of calcut thurster. Figure have the the reservations that the dephases had been that the dephases had been that the dephases had been that yet a counting to do a nothing to the calcut man. They will calcut man that he as suchado for 15 years. Begine calcut for collegues (Mason R. Lange Dephases and white place had been calculated to the calculated

#### AN WATE

Beer derking sate devalped 50 percent fewer whoerous colon furners than as fed lap water according a new study. The result water services doubt on the revalent operation wave posed on human-population tables) that distriking beer colosies the risk of develop ig observed conserin the past if for the risin the past if for the ris-

increases the risk of developing optimised cases: Is the past that he responsibility to alvies peterns had been a single risk says Richard helious cotin and-necial support at the University of Bloos in Chicago 'But I thin the should be somewhat less willing to receive a second of the contraction of the contractio



ducted by Nelson involved two dozen rodents: all gives the carcenogen denethylby drazene which is known to induce odden tumors. Then rate that drank only tap water developed an average of 2.5 tumors, those that

umans, unlike rats are some to colorectal cancer letion suggests, may be vocted of generally un-

healthy diets rather than be climiting. The study with ratis. Natis cautions is not an endorsement of beer as an infection agent. We haven't yet ecrusted any medical studen is see if we can determine

iden of the state of the company of the state of the company of th

Perents of learnings rockused fans may be both leaved and dismayed to on their children will suffer as hearing loss from liston-

Heroal Derigners having the frame authorises who apply fould make a street less from it than those who alter less from it than those who clarify the following the following selection or what was essentially noise, produced by ranging the same Bowe make through a set of their to demonster the maximal qualifies.

As is typical after exposure.

he subsects suffered some important hereing loss but the hearing loss says supples ougger and subsect hearing losses manage sudeers and others set on the losses manages undeers and others set of the losses manages and losses and losses the losses manages and losses manages manages and losses manages man



| Dengennik now is studying

pies ouggen and rutis may be intempted by in music. Persons sufferforming his bod pressure from high bod pressure in case of the force of the could fine his edition in the could his his edition in the soft in many set why a pielson from yet why a piel-

70

# 3th

## 



COSTER NOSES have high levels of such

Occurrent may be factory and a statement and a major factory and a statement a

isome and other following and present pregued and leasted in might refer in south an end of many in the produce electronic produce and the pro

is that about framing control of the control of the



is a floopinod way to stop the spread of sexually transtimely an other accounts of other diseases as well



## 









In an ever-dark and Ingid universe, gur descendants will see by the light of black holes



## AFTER THE SUN DIES

BY T. A. HEPPENHEIMER

in the datast future alons star will approach from the depths of any gatary accessory visitin sile and service of the service passes of the service of the serv

The occurs will receive select. The very any value of control is more to be selected by a control of the selected of the control of the selected with the selected by a control of the value of the control of the control of the value of the control of the control of the value of the control of the control of selected of the control of the received by the control of the control of the control of which is the control of value of value of the control of value of valu

that fills all of space. Just as our bodies have been formed from common water and minerals, so in the future our descendants may PAINTINGS BY

GEOFFREY CHANDLER

The hainting wagn comes from none mated physicists in the world include ing about the future of life when he proposed the extraordinary Dyson spharementing a Jupiter size planet and using the raw meteral to create a hollow schore ive within the shell, Dyson suggested. capturing every last be of solar energy to canala a visit civilization the likes of which

Now at Princetons Institute of Advanced Study. Dyson has thrown his great reton years to evolve a new species, ten million class, a belien for a phylum-and theirs a billion years it seems intelligent the might are from insects. But what would happen in according ton bollon volate? It is untirely impossible to conceive of ourselves changing as drashpoly as that over and own again. All you can say a on that land of

order but it a the land of change you'dless

pera over billions of years. I assume." Dvson adds. "that life will leven to live with whatever circumstances it is faced with Those circumstances have been been one of the youngest people ever to win membership in the prestorous National

Texts now. Coldrech explans, we see stokar gas." As galesoes collide the gases

will reventually be used up. Then, is triffen "The smellest stars." Goldreich adde "will

White light will slowly fixte to yellow or

ange red brown and-finally-black Dyson, that humanity, huddled in spece colones close to the warring stellar campfre might create life forms different from

es own remnants of intensiollor gas, a defuse, electrically changed collection of atorre known as plasma "Plasma sooms to have the lands of properties one would like to behave in an enormously complex feetmation as DNA closs. It has at least the

a brein can be put together, even in our own heads, sall less in the form of plasma The basic unit of plasma Ms. costssponding to the cel, acids Dyson, would water in the plasmoid being, on the other

lost that atsify it would die and its matter At the Preparen Plasma Physics Labopatory not for from Dyson's relitate plas-

concernations: 1 level to accome cropped they or they don't," he adds "And if they hold

The possitilities are endess For one constantly evolve assuming different forms self. Tute will have sail snormous opporfunities for experimenting, trying out differ ant forms of masterice. Dyson says For that reason, in fact plasmoid creetures would be ideally supply to the othery's and the temperature tot, plasmoids would

to regard us as we do the chasse man creatures would strend pre-quadrillons of twough them just as gerrira rays pass light will be as unusuel se gramma rays. The them. At these wavelengths plasma beings most even have even with which to see



sight. They would help these thoughtful

Using such wavelengths for instance, way of storing information is to set up consselezons of plasma blobs, which would stored in angles between the blobs lust as

adds. When you resilize that precision reholes would provide all energy for plains salf "In the distant future" Dyson explains then send those chunks down to gather

Energy stored up in black holes. Dyson. blackhole energy for the creation of art

Evon so this state of affairs will not con-

When the protons decay so will the energy leaving only electrons and possparts. When electrons and postrons col-

But in Dysons view the decay of protons need not mean, the end of life (An election and position can orbit one enwided they meantain this distance free will

Postronum will form a plasma similar to

far more deluse. Thus the life torins that

And according to cosmologiet Don Page gree. Thus the Me processes of positron am will be slow in ways fast peen our said Muggstyness will conserve energy as pariods with times of rest reasonering in-And when the postsonum creatures do

during earlier inser. Like the light we see tors to recall the epic of the galaxies and

world would have wavelengths ranging ground from a light year in langer. Yet those sed. The nostronum benos, briefly, are what will come after man DO





Epidemiologists search for s to stop the murders, suicides,

## A PLAGUE CALLEO VIOLENCE

Disching who is a Angel of the why copulated plans and bar and bar and Breath Baser about the Wyor

was pass area. And our a presence with an previousle as the biscory August Peer. Whatworths power this wearner force was it quickly spread through the poyches of a hardful of young men like some that inspirous way. A named you hand days sured the Exprogram or a made from agreement or become only well deed swaring a form a time with a sewestorm, looped account from their other is sewestorm, opped account from their other is sewestorm, opped account from their other is sewestorm.

pularity as more young men were found ingod with rope strips of leather wire princise clothing. In less than two morets rune Netwetercans between the ages of fourteen and

AINTING BY VLADIMIR VELICKOVIC

 Just as certain parasites and bacteria multiply when environmental conditions are favorable to their growth, violence seems to "breed" in certain geographic areas.



twenty-six were deed by their own hands And at least 20 more men and women had tred to take their own lives In October the wind furned cold and

In Copoder the whole familiar cases are presented across the said and contribute 2. Checknow and Avision tribes gathered in tinged the inequalities for across medicine harded close by their amongs them they proposed and across medicine harded close by their amongs, to light they along a violation that had inhoosed for young people. When the contenting are spectrum of influence. "We don't really are spectrum of influence." We don't really also appeared to the content of the spectrum of influence. "We don't really spectrum of influence." "We don't really spectrum of influence." "We don't really spectrum of the properties of the spectrum of the content of the spectrum of spectru

The cormection between voluntial and disasses in root of him a mostable of Agrowing number of operated between time or a people of the common of the common

Top: Morder rates are bughest in the as-called homeste belt that runs across the South or DMN the dead through a technique called a psychological autopsy.

The parallels between volonce and die ease may seem starting, puzzing, even

Inginering But scientists are determined to track down voterco, analyze it, and overmostly prevent it, as though it were any other deadly infection.

Bis years ago William Foege, who at that

other deathy measure.

Sa years ago William Fooge, who at that fame was decider of the Comben for Dail seem Corror (DDC) in Alamba saked a sample question. "What's killing people?" He ordered a duty first documental that measurements are usual services the problems in the United Solate. And high on the Lie-dong with cancer, heart disease diabetius, and stroke—sees another isself, alliction of our distriction.

servius—was arother isolary affation of our society widerion. That more it was institution on the service of the service of the service on the service of the service of the service service service of the service of the service entirely widerion. The staff members—a service or service of the service

Tortoo long, people have thought of viclence as just a commal-justice problem? says Mark Rosenberg, other of CDCs violence branch. With his black, curly hist, proppy plasses, and bright jed sweeter,

Reporting tools may be a paid statute, who has been teen too a fortyward off or the paid of the paid o

On his they do not vertical below to substitute the many and the many

"For centures people have worrise book the risk inhabition player in causing yill depicts to spread." Philippo says I be pormit up that in the same of succession says I be pormit up that in the same of succession for the publication of Goethe in his crows. The same of the succession says I be pormit on the same of th

or's follows succide. Printige clacked to have the imitation hypothesis by studying actual actual violence Dose in action the surrective properties to commit from cide? Dose in mail suicide induce other popole to take their own lives? Phillips was well aware of the scennifes exponenties.

conducted under laboratory conditions given the opportunity, puriched paware dots

entity in a best tube then it does in the humon backy and people act differently in the currently life "Phillips says So he began Was Zimer between 1947 and 1968. In the acto. Philips found an average of 58 1 more amount of publicity the story received. For

pected - a significant 12 percent increase modeling process at work in these fatalaccidents increase significantly after surcicles are published, especially in the area showed in average national of 9.1 per-Interrestingly chivers who cled in single car the wearns described in the saxiste stowho committed suicade. I feets wine some stores on privite place accidents multiof soop opera suicides. These statistics end a rise in murder moderns. But I appear so frequently, he rocals. Twould

simmer on the back burner until inspiration type of news coverage I needed.....the kind of violence that is rewarded exching and populational austral by almost everyone-

place from 1973 to 1979. His findings? After a number of a number of the property of the pr percent accounting for about 11 arids increases in deaths followed two Muham med Ali matches in 1975, the very highly

rilla evert 108 people were reportedly billing That "Phillips noons "is werth-sur more than would be expected for that day tended to share physical track with the

But could the media coverage of bosing matches, as well as suicides, simply have sped up deaths that would have hep-

'No " Phillips sero. 'The evidence sugwould have been followed by a decrease

They trace a victim's last days and develop meticulous postmortem biographies what

the person was like, what he feared, and his state of mind

in the last weeks of his life.

boxing matches medit not have occurred at all without the influence of the stones planed finding has amerged from Philleps's ongoing research. When violent deaths "spread following publicity about peak three days after the precipitating Phillippi's work has dorwn confroversy

Philips studed boxing matches that took and there set even larry easy answers." A says Bayon poets out that Phillips tailed to litter out all the fectors that may lead to fluosusters in suipides and homoides. "For

becoming and the middle of a month people get paid. They're also roughly the same times that hornicades tend to peak dies Philips has analyzed." In addition We found that they went up three days after a prozefight too. You could argue that If policemen were watching those tights,

confacion. The move was met with skeedcom Why had epiderrologists entered asists and sociobiologists? The variables of horrecate rates for three weeks after each plen in sociobiological terms. No wall of the hurren concident is legacy as old as

But the staff of the CDC and other reof modern life. They laborously proce to getverstatistics wade through decades of coroners' reports and compare demoof computer printouts-cold, Veless Lets

of numbers—hoping to find yord picterns that will explain the proodshed —the whos wherea hows and whys of victionon

particular regions--- resistant to the tropics. hotor in the South I says Jen Meecy "There in the South are sessed to think cornin kinds of victorics are acceptable." Morey moves recoloably loss likely to led former/yes Why? Is the because of a difference in is flenence in the racial or ethnic makeup of

behavior is hardly new. In 1603 the Euro-

ture of man from the location of the segion are turbulent, restless, and unsteady and susteen Introdutants of unitory on the

effermate. Those who live in barren places are skilled inclustratus abovet, and stock uk such as change of season may in a 1983 study Errory University psychiatrial Health Instault psychologist Done Zumpe poaks in warm weather smoly because recre people are outdoors increasing the opportunity for assaults in the home re-

propose that high temperatures and low days. They suggest that atmospheric continues and vident episodes are not only

they talled the number of family disturported. When grone levels were high imprewordy furnic conditions concided with Why do some people living in environ

at high risk rever exhibit violent behavior? ingly out of the blue? Not only do stimuli bology plays in violence. There is no much

disposters to volence exet that I don't

berg notes that those who perhopate in Marcid Hagith in Bethesds. Maryland while

book Come and Human Nature. Although

one biological realty that experts agree has



FICTION

In the Nigerian city of Onitsha a young boy struggles to write a historical nlay And the nice thing about the past is that you can always rewrite it

# THE LIONS ARE ASLEEP THIS NIGHT

BY HOWARD WALDROP

The white map was one country three Rob- His loud haranques terboardwalk at the other

drunk agen Robert Ci- ert could not remember inhed schoolchridren nerite crossed the nar- which Mr Lemuel his Robert's classimates my covering street and history teacher had men-looked on the man as a stepped up on the boned it only in passing forest demon Some-Since showing up in times the constables early Cut of the potner of Crysha town the white came and took him away. he eye he saw the white man had worn the same sometimes they only man raying Therman sist. I khaku parits They were of asked him to be quiet wal, shaking his head, and stained The shirt he. Mostly he could be punctualing his mono- wore today was a dash- seen propped against a

boun with guising words in perhaps variegated building, taking to him-Some said he had been blue and red when self Consecrativ some been a mercenery in one made, now laded to pur- body would give him of the bonder wass up the pie He wore a cap with a money. Then he would coast one of those con- foreign insignia. Some make his way to the nearflicts in which two open- said he had been a gen- est store or market stall tries had become one, or lend others is sergoant. That sold palm wire

PAINTING BY ALBERT EECKHOUT



He had been in Robert's neighborhood. Robert did not look at him. Thinking of

You will not be daugling at the market. his mother had said as he reacked hyriself. for school "Miss Moone spoke to me of

dry from her wash baskets and placed

His mother was still young and pretty but

white darming a tributary of the Napor Ho bodes had ever been found. There was a amal mortray check from the company her ment check for single mothers

Hor neighbor Mrs. Yortebe washed, and well to do government workers and busi I shant be late," said Robert form with

erretura He knew he wouldn't spend a

He nut his achoolbooks and supplies in

What are you going to do with neccopybooks? she asked

"I'm nearly out of pages "he said She stopped "If we do much work today I shall

"I buy you ten copybooks at the start of grow on the broadfruit trees, you know? "You Mother," he said His hoped she and that the other was solicitish and empty

others I thought I was using foreight." Well said his mother, see you don't go to the marketplace. It will only make you

"You Mother," he stad Burning to her he rubbed he nose against har chaok

Good day And don't on near that marlogplace! Yes. Mother (6 Charl

The market! Bright psylloned stalls crossrpads of the trade routes, near the over and the releasy station. Here a thou-

days many times that on weekends and ons owner lowl in cages tables of loys

People taked in the languages hapging with each other calking back and in their bright red habs and robes. Robert saw atal Wazy seert and regal indicating ments of hes long largers, while the mor chart he stood before acided two more on their faces, bisolocuritry people wandared wide-eved from table to table. Itak-

6He handed the bag to the principal. The man opened it. took

out the books and pamphlets He looked at the He open on his desk like

the big book of Saint Poter in heaven 9

ing quality among themselves braved near the big contal where brosen lyegock was acid. A goet wagen dely-

ing because they were sall too hand. The teamster shrupped his shoulders and Ontrins downtown curains the harvest Robert passed by the lood staffs frough water He had been support lunch for free

weeks, saving his Friday persones. At this

Photogra and High-Class Bookstone which was his favorite. The clerk, who knew him-

Aran't you going to be late for school Robert dicin't want to take the time to talk

but said "I know the books I want. It will

Robert san past the long shelves with their terrainer titles. Drumbards Bollovo Mo-

Poured Away Johnny the Most Womed the lied with a picture of Mass Julio Erropbo Most of thern were paper covered size.

about hity pages they. Some had bright stancead lettering on them others draw mos: a few hard ofmonoraphos Robert Good Sense Why Bous Never Yout Morey and a Girls Life Without Too Many Mistokes, ibo Folktales You Should Know

He found what he was looking for Clio's green and black pover were in three of

Robert took it from the rack fit had been well thursted but Robert knew it was the more shower to where they kept the cireman anyt market rail The Phic of the

> en English Lumpean who had lived Erred Robert returned to the counter, cut of breath from his dash through the stoll These three "he said spreading them out before him

papers. That will be twenty four new cents Betset looked at him without compre-

hension. But yesterday they would have The clark looked back down at the the Gottle play sex cents, had been crossed

"Mr Fred tensor! game through vester. day and looked over the stock," said free clerk. Some prices he sessed others he abenuty recuped There are now many

"But - I only have twenty-two new tell you what young or I shall let you have

#### In the microcosms of NASA's wind tunnels supersonic dreams take

fight on man-made winds It is a place where pilots regularly push arcraft to their - where are and speciatrall make the leap from subsenic limits—deliberately setting planns into talispins, nou-tricly puncting through the sound barror, testing strange critical. As they accelerate to achieve and then surpass new craft configurations—all as part of a day's work. It's NASA's Langley Research Center in Hampton, Vir-Mech I (the speed of sound), reconfl encounter shock waves and combinations of flow patterns that can comgins, where some of the most sophisticated and inge promise performance and destroy the craft

Langley is unique in that many ot its most important Softs take place indoors, inside one of its 40 wind tunnets Some, the the vertical-spin turnel, are designed to by a turnel living constructed at NASA's Arms Re-

handle a potentially deadly twister in another, beginly colored linera play ecross sign to analyze sufflow around the edge of the

suspended in a wind furnel But easily the most exolic of the tunnels is the Netsonal Transomo Facility, or NTE Inside this building tiny aircraft

By pumping hydrogen va-per into the turnel seroneu-

mirries the reality of Eight



deceptively ordinary. The NTF is not the largest wind turnel in the country. (That kenor will seen be claimed search Cortor in Colfornia.) And it has an undramatic appearance. Verwood from the outside the NTF resembles a small factory building funct of the facety-the less section-is a smed area 25 feet long and 8.2 feet session twdrogen-laden air are

The place where those legh-stress tests take place is

a stak of metal called a stang dows in the walls serve as vision ports. Through they ston recentor much test

with video cameras.

PHOTOGRAPHS BY BRIAN WOLFF













des preminde in personal lance de l'appropriée de la lance de la lance de l'appropriée de la lance de





st a frigid - 320°F it is then planes apaco-shuffe mod released in the form of tray dis. Sighter planes, and gen-deplets sprayed through 296 eral-avisation arcoaft. And fire recipies Once exposed when the first Orient Ex-

they managed to do that. The Since the facility began second is integer give a permang late in 1994 if has Nitrogen is drawn into the tasked practically every form Nitrogen is drawn into the tested practically every form turnel as a load, purpoed in of winged craft, transport Interioration Control explanation
and the designation instance of the control explanation of the contr











invalued it furned out the earth of wiscompletely of them in carby-quist contion ration of evaluation the invalidablers has been judged about the formation for the conplete of the control of the control of the cheese invalidation of the country of the them invalidation of the country of the them invalidation of the country of the experiment of the country of the country of the and the control of the country of the country of the experiment of the country of the country of the experiment of the country of the country of the experiment of the country of the country of the experiment of the country of the country of the experiment of the country of the country of the experiment of the country of the country of the experiment of the country of the country of the country of the experiment of the country of the country of the country of the experiment of the country of the country of the country of the experiment of the country of the country of the country of the experiment of the country of the country of the country of the experiment of the country of the country of the country of the country of the experiment of the country of

if the American Occupation Army disug. Shi immedia deadhill, with a half hour it becomes clear that the palls are not working. The birthing cutlors on a dozen computate terminals are proposed to the pall of the pall of the pall of the pall of the birthing cuttors palls and guips them claven with violate. The pall of pall of the pall of pall of the pall of pall of the pall of pall of the pall of pall of the pall of pall of the pall of the

the door of his wifes empty close.

Four x.w. Boths ame Ourside the computer buriers a metable ameling log drifts showing the outpressor recode actins. Six pile to the wind and he sen town disease yet. The beam of his half-light piles over the unit nums. Each day the Army business.

Jumbled concrete blocks and hwisted were abut each other intong rows until the resourceal blocks bogan to resemble one vest and continuous block Presportmoves the beam of his fisshicht.

Penjah mowa ha baalif of fail parings are he enable obtaining hope has are correct cense of correction with his fails of arms gift what of a fail of a fail

He had tarred the most correlate colfpulse systems in the world by the could not stop his win from leaving. When the world when the was redering up the boarding rung to the plate and Heaton was standng on the care sade of a trobed-wire lands by sovermed but her herric shall cross Everystacky and he aretiful pursued to state in him. Presion humed based to see burker and

had graped the texteed was:

Back in the computer burner Presion
June his attention to the manifest where the
former you do for it is a few formers and so for the texteen the formers and so for the sales of the sales for the sales to popular in
formers you do for the sales hopping in

ing changing a number here, a number trees. A white wave of interference shimmers across the screen vesting out the display. A bad connection? Philipsia gats up and chiecks his liberopic loads. He crudeled the pharmopy system just a few minutes before and a grantous not to call.

Reflexively his hands move over this call bies teeting connectoris and solder points. He gauss himself some vodics and drains the mun As the intertempo subsides his

He gouls invasid som vodis and ditams for cop. As his interteriors obsolidar he begins to work quickly. Finding the room number is easy High Party officials prosinvers given special accommodations and fact and insert on the government and fact of the proper display proper drugs heaven a simple maker of the charge of the proper of the display and lated of the by commiscial time of the proper of the charged on the charge of the charged open of the charged on the charge of the charged open of the charged on the charge of the charged open of the charged on charged charged

the drug catalog, a page at a time occasorally whiting to another system when this LED atom thereis indicating that some one at the hospital is trying to access the premisely kinds. Finally Preston tends the chemical symtesis he is balling for Abst that it is a morser of a few seconds to reprogram the



Before he exits the system Preston dumps the contents of a slave disk stroughout the hospitalli patient records. The dek contiens approximately a militar words of English pomography (wife polanes land in a definity) by a sid foregoin

The Army told him to dump the The music Preston ackied himself

He takes two more tells of speed. From his seed at the conside. Problem can see the unmade bed across he full the has not stept in the bad since he self little has not stept in the bad since his wide little has not stept at all this in that shared of the scorn. The condusts of the numplied sheets, the easin gainerably of the empty closest may be midd. If housenothness mose to the condust of the condustrations more than the condustration of the conduction of con

territying then all the rubble overhead.

They call terr the Fee Catcher Process.

They call him the Piec Calcher because ha once held the nuclear bluck on his hands and he shuffled is out.

1566: Alone Proston hadred his way alto the news of the Severinschaar miss 4h eve.

1566 Alono, Proston haddend his way into the nesses the Sowel nuclear mode by ten his stood finough the data web boried through 3.0 grids crearlind time vectors system checks tax sales. Proston the Vsopith his meanman, the dyborness sesses and basehold the Passess program, and it had yelled by its prize. On travels of World Wer III. Pysishin had.

ers landed in Vladiviostok and beg shocking from way west A Sewet subm me The People's Viccinious Liberator I packed the British revel base at Gibral Presion returned to the United Stat These the Pricader! gove him a mecellor Dischous reseal to pro-

These the President gove him a ni cating Preson is great furnier/station. Preston married an anthropol rearned hims Abreu and they selled a York. Preston continued his hospes developing stillingent Society progracions not existent.

developing intelligent security programs for computer systems. Fought with commentatival weapons the war Preston had helped shape seeffed back and forth across Europe for twelve

National boundaries were light flowing nanciaround restrigation was stated No countries appealed and disapposes to the light feet has seen as the countries of the light seen and properties.

exempt: In the first two years of the war feel twenty million people clied.

Pleason sips some of the horizontal disadancer while the completes the report is claim to grant of the feel to gove the provide claim to grant of the feel to gove the provide accuracy find Cambrill between the feel to gove the provide accuracy find Cambrill the feel to gove the provide accuracy find Cambrill the feel to gove the provide accuracy find Cambrill the feel to gove the provide accuracy find Cambrill the feel to gove the feel

come he queues é nto Gane private ascurty file Above es bank de da ind green LUDe la eng Preston checks out liet le LOA is monitoring him again es on the state disk and jems by lines with the same poin est mitte Societa. wales-see hologram of Phasion's wife. He age the rectangle of plastic from the dines and holds his lighter to it in the wedge of fame the hologram mats his wise face having larring in on tool layuring and healty fading completely as the hologram store week.

watery breading between its the black program and beautiful and a form of the beautiful and the same and the same and states through taken give breading and states through taken give buildings and states through taken give put form on the rotter of a west consultation. Over other through the same and the same through taken give the first milket and and the small worship day with the Ped Site and some for any same and the same white the Ped Site and some for any same and the same white the Ped Site and some for any same and the same

wer custably Prestor has over seen. The first was his wife.

Prestor worders if the flor is sweke if a she is waste of the burns that have thackend her skin if she can some that the interruptions will soon bogs.

réenrigatoris wil soon begin Lodiang at the soot the burning hologaze let on his Imperipa. Presion begins to cry in a law minutes an embamassed guard asks him to leeve

great and this tolerate. They give head on long list of normes when he was noosled to Europe to the bosse he was the five district put officially he became was the five district put officially he became horsen as Propost Barrieg. An earney is an insocit hot self-construction work though the armsals lay no eggs, and then potential fishing the armsals body eating my way out. When the ear,



tern, often destroying the host animal database. His violen was a key official in traces of the man. After that the manis of

Preston was a methodical worker. He

It was enger from reprecions the system He kept the disks in a lead-fined floor sale under his bod. Becases the dake the sale contained a 45 caliber pasol sleep

with static, crackles out of a tiny speaker

Her porversation is nothing it is only thing like Judy or Julio. He fast-forwards Evough again before stuffing down the

dresser puls out a bottle of amphetamines, downs a handful. In a few minutes.

papers around himself, he sits on the floor and reads reconstructing his past with IBM NEC and Busers and Nasis even shance things for love but Presson is well

"Munder" Preston once told the eath or

arment The ultimore expression of the

trace) her face CO

of water. Don't worry, he tells the guard.

empty closers. The foolish rooms of love. it



Santwee Ronwes culumce war after-dimer th three coffee beam

ohuca Rassana, 84 P)



The pliot who brake the sound barrier in his twenties, flew 127 combat missions in his forties. tells why in his sixties he still needs the right stuff to test-fly tomorrow's high-tech ster-wers fighter planes

#### INTERVIEW

nom the beliroom stage of a New Origans hotel Brigar der General Chuck Yeager closed his address to 500 agrospana educators with an ing enclosement of the Strategig Defense Intrative The He seemed a bit emberreased by the evenon flashed an aw-shades smile and left the podum To the backstage observer the swagger in his walk was upmatricable

boy who got lucky. He says there's lots of talent on the shuttle-wocatest commission dut behind the selfeffecting words and laid back style is a curring public relations man "Asagor holds fast to his views and take strenht When cuestings out tough he eases into his thickest. West Virginia drawl and slides. through them with down-home quips like "hat don't mean a hager calls himself a country or I'm welkin out of here

PHOTOGRAPH BY TOM ZIMBERGER

He has little patience for reminiscing three, he sail fires at air shows and towchecks a book of aviation records, looking

Charles F. Yearner born in 1923 and raised in Hamlin, West Vinginia, was fifteen first riight. He worked as an aronalt me ctone, then imped as a relat Based in

count by the Germans-the et hobber stick in rudder men. The Air Force found

over 125 server pilots and shapped him to shapped like is builted with slender writing a perceived barrier-the sound barrierin the sky on the marring of October 14, 1947 He some boom-the feet ever-

rocked the town of Waterwille California in hersed a new era in flight history to speed and efitude Yeagor few the

looked like a meteor impact crater, a syndron hale in the desert." he says. "We'd

member. "We find out what's cousing it to direct its space school at Edwards. His day esarchates of his school fly for NASA. in 1966 President Johnson declared that space should be used for peaceful pur

68 CMN

poses and shut down the mittary promam. So Colorel Yeaper went to Southgast Asia as a wing commender of twe

weapons he had tested a decade before reght speak of hends. Their names come quackly in World War II he flew the phopdriven P-51 Mustang. The P signified our ing Star. The Pipecame F for tighter as the F-96 Selore went to Korea Messana mustbers aren't skipped. they dosignose abon-

pylots in 1955 Yeaper Biofelested the F-100 Super Salore, the first highter to Ity super

> We were just able to crawl in the jet stream

and stay in it all the way to New York We were smokin' along.

eighty knots of fail wind.

record he emited from an F-104 fetaul with in the mornt attack on Trook Libya The prototype F-20 Tigershork, a lighter he

be starting with Yeager's X-1 were in taxious take off and fly into orbit. One fun plane. Ywaper fiets is the T-38 the T-is for

ble in backwards in his suppliporaphy

in high-performance jets, I can always sneak out back and by ultrainints Writer Paul Bagne, who conducted the in Ceder Picipe a town of 300 people in

the Sens (gothils of northern California Once How do you spend your time when

Venger Londown to Harry Streety with my around the house. I like to get out and relax I'm not addicted to hunking and tellpeople bugging you at the time

Dawy. What ampliones are you flying now? Yeager: We set the record from Los Angains to New York one night in the Piper Cheverne 400 LS It crumes botter than four hundred miles an hour and thetis bad in Burbank when we took off and it stream So we were put able to crawl in a about eighty knots of tail wind. Hell I ve got some thety world records in the amplane.

Yeappy The F-15's or F-4's, T-38's and other etames worker with the Air Force They of 20 to a show in Las Vegres in about three first supersone fight Gryn. Do you have a favorte arciana?

uov. goga di Guskan Ta rang, you uov. work with a new argitane because of the technology thef's becoming available in Greek: For him you also by an ultralight craft

Yeager Litraight flyin is no more reky from

the right stuff as expenence knowing Yeager Well it's being in the right place at the tight time. I served in World War II come to tost plot achool. Then the X-1 came

Chuna Yogger knoos on ultralight.....a steps along and legs that It was ours look. The is I you let yourself, your experience ends The langer you live the bester you get and self. The object is to live a long time. Luck How did I survive the odds against me when my section seet oot tangled in my

Greyi. Many people who saw the move The Yeager You have to look at the book and the move us entertainment it a not a docbar and some puy didn't ask me. "Do you

Omy. Did you really by with broken ribs plo of horses. We were racing, and there

X I while it was in the air-hanging out of

the belly of a \$ 29. Lused the stick to close the cooked door We broke Mach 1 line prorty crude-makeshift helmet and all

Gests in 1947 your protective gear was the move When I was at Work! Figirl in 1945 and we were beginning to fly acts, we of protection on our heads. The things we it was handy. We put four straps on it and

going of 46. That althe helmet I used when

Vesiger: That's because the shuttle riself is

a sense of very complex systems that rerequerify the astronauts-well, I don't use plot and the copilot-don't get involved in

want to dilute the glamour of being commander by becoming technicians Gewi Yourn awing NASA should give

Yeager, It would pay Like with John Young said something before the scodert. The guys who fly the shuttle should become advantage. I'd find it interesting to learn about the propulsion system. Back in our

Oresi Young said the booster seal prob-Yeeger Woll it maily want! They just waren't involved in the solid rocket booker of supervision, including the schoneuts But

in a lot of hardware areas because it pays

Jerger Bight and had known of the Thickol concerns about the seeks in pold weather.

Yeager I don't know Therest never bean any indication that the cold weather wan a

tyrw fany program if a nuvia a commencior and he birches about the system, then NASIA may never give him a chance to fla nart of the nearn or not. You have to walk Green In that what Young did until now?

solety-wolstone-for previous lights-the the safety of the program he should ver as accident then you tall note you the crowd of Monday-marring quarterbacks. Greet The asponeuts had magivings about Yearne The whole bursch that thes the

shuffe has voiced concern about landing with moats on each side and wence. It costs price. Had there not been an accident, Prose concerns about landing would probably have made little difference. But the priots are not clean in this. They could have

commercial-arrine accident, military acci



usually will booker. When you have an you will be provided the provided the provided to the provided the provided the provided to have been been been as to see that a closent happen sparn. What in florgers (charmen andered provided the provided the provided happen sparn. What is been as the provided happen sparn. It was to be set on a public and and you greaters if m it such when and and you greaters if m it such with and will be the provided to and the provided the provided out what they find outpressing my common to dem have to all on the little of the transfer sparn. It was the provided they will be provided to the provided they they be provided they they provided they provided they provided they provided they they provided they they provided they they provided they provided they they provided th

Orm: The locket designers teetfying used the word envelope—is that the same tarm you used at Edwards?

you used all Edwards? Wegger loss formedops can be applied to anything it stated in the cash days days. An envision is a noclarigation affect of pages to when you talk about the log of the envision to the anitual through deben may seed Obewoody the last laids excut be too to the log of the envision that both most level from your ballet about operating in the upper loyer talket about operating in the upper loyer talket and the log of the

pertains Did finly by the Obelenger or add 14st enrollege? Yesiger They exposed some system or size of this enhances at ween they are determined they make their the or colded booster at temperatures both wildinger the figurials. They serve to be colded the observed at temperatures to wildinger the figurials. They serve to be colded the temperature of the observed or degrees. The observed was one colder than that and a for of people we appretrowner about it. Them appears be a task of communication between the lock of supervision for servence to the

ouncer sharts explain and they learned a difference of the learned and they learned at those learned and they learned at the learned and they learned and they learned at the learned at the

Owner what do the gloss do de tissueler? Mosgar They are microlinoring her oystems and have the opposition to gade the firm; if his guidance spetied goes out. They have the guidance spetied goes out. They have her desirable gloss has visited upon the what's mission and elebrating. They stude what's mission and elebrating they should code! because I goes frough a profess of thrust at certain afficiales and opposits. For prefly collected the polici and change anything. If a pilot doesn't have control over promotives glossification and promoti

egross equipment, as it is called in Egrison. You by an admitiserve environment. It allows they are equipment and the election saids cappen model hald habe and all hill original for the environment. It is a supplementation of the environment of the environment





a dark, but has more flower than pole beers. A raste



She's a screntific heroine who has the chance to be free-of she can surviva BY EUGENE LINDEN

Back in 1973 when Eugene Goodeli's phrase, 'in the Steve) and a period Heristantute for Primate Studies in Normen. Oklehomis, would hersid communication. He believed that by reaching ages to use also learn more about the naful deeximination of the talking Indeed, many people have

munication. Others arous that peaty for language is so preposterous it should not be inhowever, is the ages themdire of the sign-language studies of the lest decade. The the move-to cages in other primete cercers to AIDS tabo-

meds validity Some research.

forcing captive arrives to sub-

mit to the whims of men under-

Linden wide Apex Men and shadow of men Ther venous Language. he was an entru- journeys are a pagnima progmotel and acyrolific tertain in and cortend with the embodments of the various aspects of man's relationship with our anmel reture. Some of these inabout who we are Apart from ture of tenguage and intelligence moral questions. Linden gence don't But today I gater ands. The sages of some of finds himself involved in a pain. These an mais provide stones of despled intelligent, and manvelously strong individuals who have had to deal with chalbecam to details the exper-

> Lucy, a captive-born chimp respect as part of a human famdens most recent book. During an attractive ranch house borand gardens Lucy had a siting (the Temerins Igenageson

people who worked with her Ac independent legendanty stub born Jans Certer, already car-Jam's hoogened to arrive at a

about Lucy's future. Lucy was 11 years old in 1975, and the base wood might offer in an exuberant human adolescent Lucy simply refused to piber We again Like so many others to-day basis they found them-



SUBURBAN CHIMP

not remember processly, she says that in late 1976 or easily 1977 size and her husrehabilitating chimps in the wild. Once we a life in the wild says Jane Torrierin, we did not come out and say the idea was

Lucy was not only full grown but as Jame

When test approached Statis Brown born and raised in the United Styles and

with other chiropenzees. Finally Statio

nance over the chimo The communications between the with Lucy Taxes had developed a pood net been with Lucy for long and because take-and when we asked her whether she

Lucy and exec the hanseon chrystoly caused Steta Brown to change her mind

haphazard expection. The steathof Lucy the feetibles take yained chimpenine neighborship with the chimp and her willingin her background to suggest that Janis

was grapated for the ngots she would lisce And indeed, the first few months of the who left that the plan was if conceived. The hun in a free weeks set planned. For one totally unprepared for their arrival. They had

more primitive than anything in use at the within weeks aris an emacated harless up as the alarmet photo on the cover of a

 Lucy siept on. a mattress, sinped sode, had schoolayl crushes.

leating through magazines. recy for little Private Becyamin.

cage no one would be able to get her back Managine forced a little bester. She had not led a life as privileged as Lucys, and

away Jarys recalled later on She fried my to tring the wids to her. But owen the same with kept was a speaker sense of sucluded some the mirrodiste resity was

a zep-and not a 200 that compared to To all appearances the effort was a diswell Concerned above her wellers the There was reason to believe fixel Janua

I kept hearing reports about Lucy's We offered the any airrorer of hope for cap

her time between Banga and the Baboon were added and which were not and when unfortunate run-in with settin arts. Saferi note are a clearactive leadure of the Alrican

in their path. In their case I was Junio. One tion of mosquito netting, she woke to tind End strands of her has had fallen through Buckfire a feworite adult male chimp of spaters sumpting around that was being Nor did Jares make any headway in heinform to help Lucy to learn the ways of a the ledder also povered with ants. When the remarking arts with alcohol. It was an

> Apart from Janies fraumes progress in treating Lucy to adapt was slow to the Finally after some time in Abuko Janis.

awating repair ation to the torestal uprive

# OMNI IS FIRST ON-LINE WITH ITS ELECTRONIC MAGAZINE.

THE FIRST MAGAZINE TO BRING YOU THE FUTURE EACH MONTH NOW BRINGS IT TO YOU EACH DAY.

Through the worder of the CompuServe Information Service, OMM magazine becomes OMH OF-Line—a fire, interactive forum of thoughts and diseas. Subscribe to OMH On-the- and you gain considered westerns of all the fusionating OMH faulties, interactive and columns—seems Guyble faulties, interactive and columns. Jesus the longering, As a member of OMM On Line, you'll be in soften you toget in an entirely new existingtial venture, orlongs:

 OMNI Conferencing, Not only will you be able to talk electronically in "live" discursions to other OMNI readers but you'd also be able to confer with

Be on the lookout for free On-Line subscription offer in your Oh

leading authorities in technology and medicine, as well as renowned science-fiction authors

 OMNI Data Lizaray. You may returne on exchange information relating to eary one of ten troud, singuing obsessors ranging from the fixman mark to UPOs—24 hours a stay. 7 days a work! Also, with OMNI Messings, autoscrossing communicate with OMNI whiters, editors, and one another visi electricate and in his OMNI fallulation will know than informed of new Data Library orlanging and germical confirmance.

So, be an intellectual pioneed For more information, or to start using OMNI On-Line immediately cell this toll-free number and sisk for Operato \$5: 1-000-546-6199. (In Onio and outside the U.S. cell: 1-516-457-0502.)

I renewal potice!





A menagerie of living spheres, rods, and helices—looked in duels to the death drift through our inner universe

# THE MICROBE WARS

BY LEAH WALLACH

If we could should be the search as the search active we discontinuous immortant performance (aging more recoproported for our live. They are all plant of the amount experient, as and continuous and continuous active and active activ







Cells garge themselves on the booles of the invaders



spheres. They engage themselves with the bodies of the meaes until they burst. Rohng's portrease of cellular warfars began after a phermaceutoal company asked him to paint.

Secrets subject ever since. He glooms his information from micropholographs, from hissue stores, and from conversations with societies. The results are color-enhanced tablesia, of the sind-death singles—the good guy vinsue the bad guys. In says the "tee" guys include the blue.

the bald guyst. The says the "the digyst induced the blue become dynamic green appel, which are browning merrogies Circles are busines that integrite protuments (but print this people) which recommended lettly as self-protection introduced lettly as self-protection in the self-prosent protection in the self-protection in the self-protection in the self-prosent protection in the self-protection in the s

less fortunate invader (right) is swallowed by a phagocyte "Now when I have an infection on my ekn. I know all the details." Rohng says "And I make a whole unverse from them: DO



Phoebe Snow is
 All one of many celebra

conwinced

## AUTI MATTER

dack in 1975 singlethodes Drov Optiand a New Hards recome commond with a Duage board. Chesis, Day board. Chesis, Day board Chesis, Day board on the excellent Drovinson Analysis of the Chetonian of the Interior of Lauritana and United the Africana partial Common was partially partially of common view. partial Common was a partial common of the Africana of the Afric

gel estitic covineanon with seasons in the inner earth and the Bamoda français (was thrifted to see 1/46 with the covina ways Srow But after a winto rigit soary indeed according is Snow the alteration to sectually began casngin fory scheming outside or the false.

Code Alle The Marchas of Communication Story and National Marchas Story Story

### UFO UPDATE

the standard or the standard o

white indoor of epochang for expressions as a water in all the storage group decorable in expressions entering exists would trave materiative by more than a supplier and the storage of the expression may be expressed in the expression of the expr

side of vertices and the second state of the s

opearing suddenly opting to Weller in g infound for about minutes from just suddenly left short infout exson the stars inremed by Own orbid craft with soldly to have and ord in lightning ord in lightning ord fill splitting ord or weather to establishments.







greater processes the sunall generate more energy of week a would collapse derive pressure. So under the greater the sun entre centrally energy utravector it and less of the warming eleming fraced both a other permanent that lessed bride food plants and a picel food plants and a

coing demain the leads power foot gletter sind a sower of unbrowder light that hand casule cender Any themy is possible yet John Lody, who is specialist in the inhumble of in som on learns demain of a sader physical or the second Certise for Amogissond Certise for Amog-



Source John Ferguson three so in fact, he believes that Me has been strayed throughout history by a cut of gravity ownocked by officials issuing. Ferguson an aerospace angreen from Surrey Erg.



g would wright less to says appeared to says appeared to be cover growny before a lat crew fout out on land it of the cover grown during the cover of weak grown ideal ned as gravity essed to more than weight didnosaus in Fesquery in Fesquery to France to more than weight didnosaus in Fesquery to the more than weight didnosaus in Fesquery to the cover to

Volkovsky Some people set have to explain all of festion place to the set of the set who have it any existence that the generalized constant charges and all the exchange seems to be that a publishy dosen! As tang as these all open set of the all of the set of the dosen! As tang as the all of the set of the all of the set of the dosen! As tang as the dosen it of the all of the set of the dosen and dosen dosen and dosen and dosen dosen



### **VIOLENCE**

creater than average risk of being wolked ways," Herristein says. "Others argue agenst doing gryffing because someone

It is cirticult for most of us to imagine livning nows tell grueeome takes of murder tone and volunce will no longer be a fact

called epidemic proportions-especially two years: outbreeks of teenage surcido reservation of Wind River Ottoxi Shaffor professor of prayerentry and pediatros of

Lituro a technique known as a praythogather date about the dead from the mem-

NA CROSS

tana. Woohol was a factor in four of the deafus. And the young mon who leved in lot of violence. It's also important to note that at the suicides except one wire better off francisty. That might be a fector The problems of Native Americans-

olossed over. The most startling discov-

to system years old Thoy were best terrors the cidar group of sucides, between twents. They lyes, she says, 'were not

> €You are for more likely to be

killed by someone you know. home, than by a stranger

stalking you on some dark street 9

particularly more chaotic before their of the epidemic incassed their dispair and cauthed there to have they own lave. Tower evels that the cluster suicides at the West

birty "You don't went to panic people by

plence Ani succès instance? Is violence house adversely? Studies the Philippin

stationg you on a dark street you are at

greater and if you live in a city than in the country. The CDC has also established that sourced the orick are you will do it in April

to soor when recogning conditions plurathe auto inclustry in Defroit social agen-There are more murders in poor creas from drinking causes leftings

gies anger, and intuition. "We channeled safter then jain and followed up on about identified to high ask around the nine sucates I says Tower. The value replaced that there was no recreation for the legaritary pulled together to create a kind of safety dai-refunced volence drove a news crew rester. No one can explain the regact of locked regularances. Tower takes about the bolism provided through the coromony

All we know mally in that hundreds of Native Americans knot below their tribal parted with the input colors of the math. good smoke of burning herbs. Early the next service office in Frontiert County "We want

And they were At least by the and of October these were no more sucides. No to be attacked or lefect by someone you

was track over 00

### SUBURBAN CHIMP

Jans and her chimps in a setting that was much closer to what Jans had envisioned when she left the states for Africa. On Beboon Island there was the possibility that Lucy ringht pull herself together. Dash the cided male, was only live when

Dash the cided male, was only her writing how ymoved to the said or him stiffs? The dominant figure was done, and the dommand them; was large, and the domnat have been the dominant chimp of them that been in add mined accord or even a strange actiff termate. Let the only offset large chimp in the group was Mananer, who was owned by every 6 prices target control for the control of the control of protecting of the control of protecting the control of the con

The first mortal room. Juris shared was a soon time to be a soon to be

incusion rigidating Lucy and Manierre of Other ground. Before their less from Lucy Began to siting in Inside, but she would deep in the less of startly transitive rigidating their control among the leeves. Bee the offers chimps, Solar as all leview, dates has been crisible to get the certifician commission between Solar as all leview, dates the service her solar as all review to the solar her solar as a leview of the solar her solar chimps and her solar chimps and bould neets out enrong the leeves. Linkla wild chimps if say will use a next more in once a practical orbit opur-bill years to some core as practical orbit opur-bill years to some solar core as practical orbit opur-bill years.

colonial programmodations. Merchanel, Janis could not force the change to move each night for libration respects. Since she had had to book them by example, the would have had to make the countries in etempling to build a make need in a high place wonly day it was a nisk which could not afford to tote for the had tallen and bridgen is born or two sine would have had not the others to provide him.

Teaching by example mean cating all the foods the chimps should set and hop-

ing that they would emulate her. When sits saw an edition ledt Jahrin would immate others from tables and point the way if the leaves were in a tree, James would climb to a less bestich and principalisationally filmodified to the baselise, making satisfied gruffs to let the chings ferous that they were meaning to the property of the chings of the chi

White Likey overstually began to set wicgrown boods that James had gathered for her she resented gathering lood hosted. For the first year Lucy clung to her relationating with James She would not done the other than James She would not done from the river "Lucy saw me dimining from a bottle" tayer, starts that's what she warned took.

Lucy's first big benefitiough carrie when the searced to gather the leaves and theers of the bacbath free Even more empotant, she overshally learned to crack this becase that According to Jams. "It was as if everybody ofte how it was her first time because thay all stopped what they

eable leaf Janes would imitate chimp banks and point the way. If the leaves

were in a tree,
Janis would offinb to a branch
and munch on
them making satisfied grunts?

west doing and witched |

the perhaps she had made a medial an pringing Lucy lines and had all five efforts enging Lucy lines and had all five efforts enging have been for naught. All the first place was severnly stellarload innarrally and she let stratefied in every other way as well. All has been print five charge did sometiming that enhanced James but that bursed cut to be a furning point in Lucy's adaptation to the wid. What they all was to been down the back.

of Jame's dago. This may sound sext, Jame receib. But I was so make all the impossibilities. I name soon of the time growth makes. I name shoot thinking. They re not going to have any more foot, they can other make or not make it.

"Lucy got patheboally thin the would just at their and soon all the time food." Other.

the core out. Lice's fur! She would when and start pulling out her har. It was spherd to gooren, and what I finally hed to do was to stop her from having what ownsout with me! made her go back and at behind the day. I don't have the second of the country of the

accurate the committees body where the could barrly bornly see mit Them site would barrly bornly see mit Them site would borrly move up with I was in vew the seem on loss of byte And I reflect locided I had to poculared had her bornling existing and so I would go out with the group, and site of I would not with the group, and site of I would not seen the her ongsit pot barrs plot weeks to see may the other body when I flought shall may be on strength to go.

my about with ord (10th the rife were property of property or a left (10th the rife was to property or a left was to propert

published of LLDy successed where her opplings had fisted from the part on Lucy made sheety progress learning from James as well as from the wider charges. A year after my will Lucy became very if Thad out Jerns in fouch with Jam Matio-

ney of the Laboratory for Exponmental Modern and Burgery in Primates, and the few over to asseming Luby and the other champs the secondary purpose was to see whether James appreced were in whate all terradiates to the gram deathry facing champs in secondaries in the United States. When Mathemy say Jusy also was exterment their and week it to adoptioned the prompts their and week it to adoptioned the comments and week it to adoptioned the prompts their and week it to adoptioned the comments their and week it to adoptioned the prompts their and week it to adoptioned the comments their and week it to adoption the comments their and week it to adoption the comments their and week it to adoption the comments their and week it to adopt the comments their and week it to adopt the comments their and week it to adopt their comments their comments and their comments are also as the comments of their comments and their comments are comments and their comments are comments and their comments and comments are comments and comments and comments and comments and comments are comments

premay this and ware in a sign year in hisse as chronic anema. possibly brought on by hockworn because the chronic also or a larly small alliand they also of the chrocessors. The less those of the bookworn without harmset Mahooy less that Lucy would have been dead in a malter of weeks. The heartest consisted of two terrelasons and a det supplement. During these days lack years in supplement.

During the sold systumoy specify in captivity. Mathematic signs that size begins to revert to her clapsoider state. Mathematic size in size of the caption of size of Mathematics in the size of the caption of size of the caption of

Jam Marcolly come back nerr res large messages with the other, and sale put into habituating her charges to the wide but habituating her charges to the wide but had down but man be proposed of charges budy he adds, with an a firmled number of charges budy he adds, with an a firmled number of charges budy he adds, with an a people of the charges of the proposed marketer the fall and state the first diseasement proposed for a firmly market the first diseasement of a charge in the wide. Journating only the and Markather the fall and the sale with the charge of the first diseasement of the first diseasement of the sale with the charge of the first diseasement of the charge of the cha



Ower Name of the Control of the Cont

| Tyrmant Exclosed | 1 dail me | April # | Project | 1 dail me | April # | Project | P



### LIONS

When you gut two pants more, you are to bring from directly to me if the other clark or Mr. Fred is here, you are to make no "Yee yee. Then's you!" He handed all hemoney agrees. He knew it was homework.

shall be saw the rice young clerk reach into

Mr Yotofeka, the principal looked at the Tiotast. he said looking directly into the You are a bright pupi. Can you give me

plasses, which were toped at one of the

"You are thirleen years old Robert Di-

Harri me your book assonal Robert 1

"Yesse". He handed the bag to the prin

'Mrs I hovert

"Robert, two of these are own trush I am glad to see you have bought at least Boso "He held up Clas Whats Does your mother know you road these things? And hind before independence. You want peopie to believe in this kind of thing again? come back? The man who wrote five was: benefy literate little more than set come in

sity! Robert knew that Mr. Yotoloka was Mr. Votoleius became stern and businessike "For being tandy you will do those

stays detention after school. You will help

and volumbé snuti Plobert did not ike him. her sign it. You will return it to me before

stick I will be dealing with you about When he got home that afternoon Rob-

MY Yolokoka wen partly right albout The

appears out the writton, and the commol

goes by ) crowds svery afternoon going toward the playfouge in angwer to the churts and staged. He had seen the children's plays. of course-Big Magic 77te Trusting Chief Everyone his age hed-the Niger Culture MEVER REPORT -- has must gold been middle to perhaps the most breakful of no Lintard States saver sciens ... The

Sino Nedition Many Clas Det Dard P .... 

But when he goods get traints, thereigh the schools or his talecters; he had gone A3294s to see real plays, both Alnoan and Euroa play from Neppon, which he had fixed to (Pobert had liked the women accesses best, until he found out they werent women.

The first cost field seen was Westward ets for anyone who wanted them. Robert

George Chaoman Mother Bombey by Shaksper The Tragedy of Distr. Queen of

short span of time intrigued Robert, espeparly when you consider that they were the coursely and its history in books from were tweety as of them twenty of them

He classed the drawer He lookest at the cover of Thomas Goffe's play be had

Treet hand

writing. He had gotten to the place where nebe on reighboring tibes. He cut the constract down and becan to read the

Plut he round west no longer. Making sure still hot outside he opened the red, green

So the Spanish cry was Land Holland they

saided in the three famous shops. The Africa he and he men stepped out onto the safety searched and swied around for live skips

mela, bada, fish and furfice. where they stopped were there any peo-

€None of the animals were afraid of him, he walked among them, petting some

They had never seen a man and had not been hunted since

the very beginning of time.

Then were recoting abuff to Robert. He repages as he had for a week in Mr. Fried's He carrie to his tayorde illustration (which was what make him buy this book meter. harvelephant with to trunk special and with low was a passage Robert had almost memorialist

The true man then set foot at the Big em New Land Though he sailed for the he name was Cromwell. He said the air fusion of pageons, a million and a million tries a hundred hundred, and they cov-

He said there were strange humped the over. They stood so thickly that you could have walked a hundred Corgo miles on their backs, without truching the ground parks today, but covered with a red-brown

'He said none of the aramala ware afraid that a whole continent of stans and hides lay balasa European man for the taking and

Now Robert went back to work on his with a kinde and setting his eraser close at

MOTORUMO Lifes to those stars which blaze words on Think you then the Chief Re-

nebe be but a five months' wonder? weep to see his progress! Sax'ts his toward New Such light makes gods loalous

Robert heard his mother talking with a neignbor outside. He closed his provibook out Clin's Whos sway and ran to help her carry in the shooping During recess the next morning he staved inside, not igning the others in the

all the lang's children put to death, ques-

remains And pertains you all his children do057 program. As gure as the sun doth over and my cask ther limbs crack their necks and heads destroy. As for his chiefs, they are now epint to grub one and years in the New Lands no trouble to you flowwimmer. Of his castle we made great fleat, his sheep drow we all to the four winds.

This would be important to the althypote freign Moration bed accepted but the that allot altern the low-year did now. Morations and that the moration that the properties has the address allowed the both leefer by all the loss the address allowed the thin but all when the continue to the continue to the continue to the continue to the continue that is soon to delively where the delivers and the soon to delively where the delivers and the continue to the continue to the continue to whether the continue to the same that the continue to the same and then one or of the shape with then one to parts of the Oddress where the Checks the continue to the shape with then one to property where the Checks the C

This depth of buy developed with a first order of the property of the process with 6-10 story of the stand was from one of the story of the stand was first order of the stand was first order of the stand to find the stand of t

and the Course of the Course o

Warm See to own services beest naview and to review and to see the service of the

Mass Marce correct storm for size year could are yet at Rebert 4 raise with content on the service or and extra tradecentrical proteins and exist in reserved proteins on with a grown rebest classed infantifical size by service the service of the service or service of the service or ser

Will Labours upole a steam of yothmobile back multi find the weeds of the edge of the plagground. His eyes when red and the pupile mobe open than they should have been into bright afternoon sun. We be deling at glassios. He seed to Robert He handed him ada goor of bright which came just Roberts allow. Pull deleny these plants be cutting all fine way beaught the globes if you girk.

In a lew moments Richard was sweating.
A small of dissk polish and enter rubbangs care off Mr Labubas shirl as he knot beside him. They soon had cleared all along the back fance.

Ribbert got into the intyfern of the earth, storing pleasure when the cutter weeds came out of the ground with a terring page and a burst of our form the territoria. Support of the companies of the property the number with travels. Soon they had made quite age maint the sector fulface Ribbert was all writing the play in the head to had disposed in the second add.

recode quite in pole mait the listed scheel.

Rebort last old wirting list poly in the listed to the listed scheel in the second and either Netchkin in indiguite, listed ontole to the interpretate audience with the new King of Flance. Undersonwert to this listed listed listed in listed li

Mr. Labuba
 spat a stream of yohimbe-bark
 snuff into the weeds
 at the edge of the playground.

I his eyes were red and the pupils more open than they should have been in the afternoon sun?

come up and was standing beland Robert.
We Labuba seelineed hard the yellherball amp geng down chemity.
No completels Mr Yeldrieke he and looked up.
Welly good. Robert, you can go home.

when the tower bell rings of Piece of clock.
Yes, or
Mr Yogdeks werd back made
Mr Labuba looked at Robert an
writed

faithful all be jorn from the watched try clashers do while issued by belowing them proof from dooth. My wilege closed all trends slever. Research textical like home, cause. From hall mad place come you where such happens a country where the is not the candard of normally Could's Myse affiliation of the British Could's Myse affiliation of his watch.

GLEAN What could first be? secroruscy (Uncovering Armself) Murder ing along (Statio Arm) GLEAN Mother of gode! Average my death

You fell the strong man. Yondar—(Dies) (Guands advance weapons cell.) ACCULINO Winger man when all aren are wrong? Corns dogs crows buzzards isges if velocine barks, beeks, caws end seets. Make her seart cell low Dammod.

Seen. Make the earth one how Darmod demned word share wan high life pickels was the carron of states! Bare my bones than they call for real. (Ensur Inghang Bertials screams of these flowers in Arms the words in a Ares ) society of the states of the seen and the see

councer prighted interest to report. They find the reggles skin from him whole!
"But the Inde and fathing stations were have to run with just slave labor. Not enough commiss could be beneglet from the White Mann counteres to hill all the needs.

commois could be brought from the Whit Mans countess to this all the needs. Bold was more and many process. It mads of lever and favor pacpic in Extension there was some. It to in the South orn Nase Land but, it was high in the gramountain ranges and very half to dig or. The slaves were worked underground to the stay of the Them was earth under the Tension of the Tension works.

bose trust contributes. One of the final new halons was set up a state of the final new halons was set up a state of the cased that was final freedom which was the stagged from the state of the state

Roading Resource of the Pattern Roading Resource of the Roading Lip There were too feer white more and the elever armost they sont soon reliabled too and jarent they forthere are soon against the White Man.

Pendin and Several statement at an IMP color basin cress and chance of the Brain color basin cress and chance of the Brain Last of all were the colorings of the grant Comman braining families. Then the worth of Mohre Area turned on those Araba and Egyptians who had belook the White Men in the orderwords of the Laket. New they as all going on powers bean and contracting only only on the fact and contracting only only on the fact white period of the dis-

no revoo. The ghost of that deed lang? Sweeze: Whelf What mechanist that? Guards-your places! What mean you mon? Assesso: He come. I eweer this skin all sings. Its brain is ned cawly/fower his systematic which was a senior of the skin all seniors. When porter they? The old annotation

the being like a gost from our crops (fo. (Alaums without it their stratigar) of Associotes Sour man just row wished me to man mightly desem. Your megedy was in some beings proce looking over the courtversed at all his finansa and farmly 10s were cleated in regal armor of it besse wach sho ASTROLOGISH I do not know, see it was my

What is the? She reached forward and

No it is not. She looked own his last

'No Mother Please -

What are you going to do with a play? e in Mr. Fred a Physicia and have a pub-

I will make you proud of mo. Mother I

overy bit of your schoolwork. You should She handed him the notation. Put that away Then go out on the porch and being

renese. O sack run and part Faling store

govern Hold! Who is there? (Cover)

MOTOFCHE Ave dead to you and all the

as those I have board awake and titluly

MOTORER TO YOU? See from stand which each a wile child friend does the You watched my father cut way to bone and

make you a fine suit. All ron and beass, as for it is situate on cords of thest woods

•Robert passed the moaning white man and made

his way down the street, being careful to stay out of the way of the noisy streetcars

toward the center of lawn 9

gently (Disami) And now my former kins currente. Though full of hot mars. The night

Robert payand the meaning white man

He wore his best clothes, though it was market bookstall that the one sure way to

rounded by copies of all the paraphiets no cost under the prept clock on whose The calendar on her deak, with the pio-

Mr Fred is busy, said the women in the

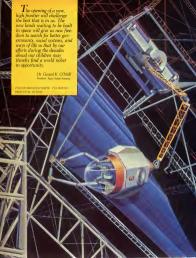
Ves. A musmo hydronosi play It is called

Ploase I Very well You shall have to west until

Other people came were wated on by

ing parts rolling thumps and bella Rob-

Liqually they were stones of rebellions These was a poster on one wall advertis-





The informative Healthirt Cetalog shows acts that will dealings instruct, and enforcan build and enjoy, from computers and



out up and pulled down the windowshade "Well for my father?"

to see Mr Fred about a play?

"is it papertypered?" asked the man

"Mr. Fred will see you now" said the

Mr Fred criv knows you are here should

against a workborish reading a long from strip of paper while a boy Robert's oce.

Those writen a new stood Kno Moto have I west you to publish it. Mr. Food laughed. Well we shall have No I am party to say it is not I didn't

cation unless I known I would have tried to get if preper Nomed 1 Is your name and address on the

Colymy reme ! Robert sold her his address and he the, but not believe Trursday after rest. You

Treatly like the books you publish. Mr.

'Always happy to meet a satisfied cusago Tasses have changed The public play said Robert Twill see you in two weeks, said Mr

tive of the White Europeans in their war-It is up to you the youth of Africa of to-

goodwill to these people who have now Ontsha Now 1559

Robert put off going to the market stall He saw that the note young click was

"His frame Mr Author" said the clork "I

with the big scarburst sowing was now

THE TRACKCALL DEATH OF KING

MR FRED OLLNIGENE for sale at Mr Fred a High Class Bookstore

a store. They were laughing at him

and the neighbors his blocks DO

to dovelop an extraordinarily incensus segastate the cells. Next they had to man chicken eggs as the medium. When the Sends virus was harvested and intoduced into the suspension medium con-

scupti after Dri-1 both of which were

one demands. "It's unlikely there's going to ent diseases probably have different whol terart stages I call it the permutation canows-not OH 1, nothing But the bes-

tricks error bonn for extension DC

NEW SUBSCRIPTION OR RENEWAL?

Your Success Worth \$295				
	OR EVEN \$1,4007 Only yes an elected have tall addressed brains or show reach sec event in becoming accom-	Begand Sabilities  *BEAH HERD ECHANSIQUE**  # Ling Bran Blemoy  - Stort Bran Manuer  - Conceptation  - Blamaning hell Sabetage  - Stops Competer Set (199)	mall Tapes  EUMINATE SELP SARQTICE  Biddinancias - Saldidasa Seria Inner Sell  Plates & Carrier As astronomy to below berges Step ast Complete Self 2006	
	Learning easily expanding poor beats, observating subcur- stinus belief systems that block	by right bean - bepassing your resistance to positive charge Add to this John-David's discov-	All less on dipolic moders and placede as any stress acco- rial Stall lease on level-out- leaving Eartherina's less of	

In the Swafe Cal 1-500-624-9778

Times and \$185 to \$485. Some Typess Your Pesistance

# MAKE A MOVE **ITHOUT US.**

We need 4-6 wooks notice of a ghance of address. Fill in the attached form

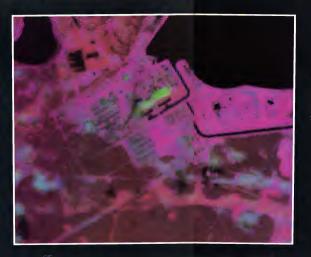
One year of Crones \$24 in the U.S. \$28 in Caracte and overseas (U.S. customy). Please

enclose authorix or money under for the appropriate arrount. 6-8 weeks for delivery LISTING/UNLISTING SERVICE? pations and ruterie companies. The publications and companies selected as

your name removed from this mailing list please check the appropriate box \_\_\_\_\_\_ OMMERTS Rev 2041 Herbes In 51522

Philise check the appropriate box below. Proment most accompany order. ☐ New Subscription ☐ Renewal ☐ Please remove my years from your making list This is a charge of activess, my new address is below.

\_\_\_\_State \_\_\_\_Ze\_\_



#### PHENOMENA

I happen of the happy and the Code of the

## INTERVIEW

Overs. Shouldn't we very the shuttle less

toption. Maybe NASA rested the shutter

Green in one of the X-1A flights you had

Manney Thoris true-sail like an arriver You the movetable. When that happened with Yeapper To me there's no such thing as prepartno the public. Hey when you fool

Owner. But they blow up the shuttle aren't record eventually you get a full seen his thing starting to shape up way back a strong supervisor who is on lop of

Yeager Expressions uttared by people a dent nothing was dissigned hopelessly

Weaper If you want to put it that way youth Anytime you get clobbased, you've run out

Ques Should we build another shuttle? Yeeger I don't know The shuttle is not a welsele you can use to recover and repeat

Cover. The Air Force always pleased for

Yeappr The X-20 Dyna Soar created in the Subset was a sensor system to what the



## PAST PRESERVED

rn more obout the full im by sindering the post This come is made of elegant block envicated leafter











Fourtest is UE Currency only Allow | 6.5 world for definery CASAGE.

and payload than the shuffle but had bescrally the same technicipy and purpose to iff objects into space—a resistle space whello not an expendicate laurich vertice. The MOL (manned orbital lab) planned back than is very samfar to what our space aborators will be

laboratory will be Own: But the United States abandoned the missary program for space capsules and a moon race.

and a moon race Wager. The resign hart or in developing a confer for a system is not a processor of the conference of the Paceasas are not from Capper in the leather man in spool the possibility of their developing and passes response became not I MASA bothlow the National Advancy Committee suggested response became not I MASA bothlow the National Advancy Committee suggested and the National Committee partners data matterly spoole reasons up sent as well the manufacture of the obscious sent matter to use species for the obscious sent matter to the process of the constant sent matter to the process of the process o

bilg for space weapone?

Own Du the Readens lead the Linted States in space-weapons development? Veoper Chloudy the best place to develop space-weapons systems a town a season hand owner of the space-weapons systems as town as season hand owner of the space weapons systems as the space of the space weapons optimise in the Pursans space weapons optimise into

The second of th

administration says the military has precily thin the insects will have military goals Oxor. With SDI and the shuffle base at Vinderberg, has the military regioned its precimience in space? Yeager The way! look at space its mailly

preormience in spaces?

Veeger The way look at space its mally no affected than the surface of the earth its an aspa where you have to develop the capability to protect your investments.

Protect the United States from investments and the protect your investments are the protect that the protect your investments are the protect that the protect your investments are the protect that the protect

ray and dividence at this state patients for deep speakingth you way to have expeatives for protecting draw most in make to be appear or not a followed that delivering our cent storage. It is a facilitation of the delivering our cent storage that a frame hase or a memoral light political most protection of the second that the second

SQUAL SIGN IN INVESTIGATION SIGN IN SECURITY SIGN IN S

you not companies in the embryoter or copy and the second of the second

Wegger The cest he the capability of dony the state ming as compassive with the guidance prevention he has in the cock pp. I enginghase that plans are no control as the control of cost in commonsulations or might set of the commonsulations or might set of the control of the control of possibility of the control of possibility of the control of possibility of the control of the cont



## Expand your Awareness

### Experience

The Inner Dimension

Additional development of the Stock bring in a handed world Reality is more than the physical material world Reality is more than the physical material world with the frequent and the stock of you with that distribution to easily a with that through presented poure for otherwise.

# to sa utilizated source of knowledge. The Vast Paychic World The inner dimension is the psychic intelfigures of the subconscious. It is a world or infinite power and patentiality. Why

stimulating sines in the consecoul, an outstands decourament illustrate such that it may be considered to sufficient and superstitistic regarding the psychic self. It is not a supernatural faceton. It can be called further year consecut further than be called further year consecut for the power of the continues of the continues

#### to these sande of their and we men that inner dimension for the fellows of living. Accept this FREE book Write today for the free copy of the book THE MASTERY OF LIFE from terms or

basis tells how you may been to use the basis tells how you may been to use the basis laws of nature. If you wish to feer know, and expense your swarcesess of M pieces with SCETHE KIM

# The ROSICRUCIANS (AMORC) Sun June, California Scitt, U.S.A.

ľ	Senie KDV The ECOLOGICAUCTANE (AMORE)		
i	Please need me the free book. The M. tery of Left		
٠	Name		

the planes unmaneuvariable. So we backed card dampers you dempers (nose lotter ceptable as far as flying qualities were concerned When pilots living F-105s and

were so unstable paots couldn't pull them This led to pulling a computer between the plot and the controls-fly-by were systerms. Instruct of a mechanical rod or cable

capabilities to build the lest production by on it. We got a highly manauterable as plane in the Mach Zregame While the prior.

approaching the maximum angle of at

tack, the pilot can ask the professe for more. Green, Advenced holders sound like com-

Yeaper Sure in the case of the F-16 or the

range, monitoring systems is ted to the selves don't do a lot of damage it's the weapons they carry DRTs in the indisp-Great is at lough to five selland run a com-

Yeagyr. Plots can operate these systems strapped in the arplana thas it some out-

sack I transfer the data to my display so 

swoor So anybody knows what to do Gener What offer new technologies are

being used in loday's jet fighters?

years we've had INS, but up until about four old own systems if takes as long as fricen surroung at the speed o light It's metan-

pulser what systems are going told. The marriengace guy messiy weeks out and

Yeager It is been demonstrated....you call e mean time totainen frakres-trat tre

ser INS system with no mowing parts, no With digital electronics in the advanced You have advanced capabilities in these

Yeaper Were lenting lighters today to



The Rio Grande
Cutthroat Trout
are biting
at Forbes
Magazine's
400-square-mile
Trinchera Ranch
in the Colorado
Rockies- and
vou're invited to



tick mith U.S., the No. Grade Outheast Prose, will with Yallowshop Centhreat, Rankow and Rook Treurs or Illarius, to one streams of writing for delivered mit one tour rapies to hook up with Am it the Northeast Truckers on Sewith an Coloredo. Fee full deed to other you can go and a few spect trained as myselectical for myself trained as the missing of the most called the missing of the missing

Porbes Trinchera Ranch earth by your rester cent point, cop. What, you don't he Food you got light personal of hauses straight the prich bases, so your con the or leases of the fairhy their years contained seals believe the fairhy their years of the prich bases to be the fairhy their years of the prich bases that their prich their prich take that dripp? Their you lauseful your happon makes it follows the constitute of the earth in it is proceed your fairhy prich you will not you happon makes it follows the constitute of the earth in it is proceed. You are the new what is the other before the prich will be aftern their state by the first their prich their prich their prich prich prich you will be a fairn their state tig gets their

Ywager Computer enhancing makes everything out in the the object—line some of the grussed-reports capabilities are not from the foot before you are the service to make the second from the service through a second from the service through a second from the service from produced to the through on terms to the part of the service for the serv

angigene, men man kanan upukan di pangang di hasia analah tah dan tah tah di pangang di hasia salah tah di pangang di kanan kanan di pangang di kanan tahun di pangang di kanan di pangang di kanan di pangang di

des sitult cer an do? 
Viesger l'an more pitet (laughter). No 
hadra a teet comment We index at laise, 
the Sovets sitult these of buy pas to pick, 
up an our rechnology because our society, 
a open and the viction by its all seconds. 
But compagnentitie Sovets never that on 
expecting to sophy that feetings by it a 
vespore system and they never will be 
vectoring with the Palastian AF Force in 11 
version new Sovet versions and the will 
they branch the rules a pick. Their techniques 
they shared the rules a pick. Their techniques 
were set to be rules a pick. Their techniques 
the pick in the rules a pick. Their techniques 
the rules a pick in their techniques 
thein

recipio, and opcome a re-mercer in a bevalle and depolared mission constitutal "Silecifi here go sharilly duty a bomb correback and rothing in between Net stain patrick to be Residue and aggressions. Draw Why week in hard prick? Dosent the Air Enco plan to build 1994a—emotisty st look vietnate? "Marger Title plots and re-memorial from this copy het these augment from computer's copy het these augments."

makes for very lethel small planes. Be cause of our capability to track vehicles

because of the amantresis built into the mentiles youll probably see a corton per certain per particular probably see a corton per certain policy of the period of our fighter because the first like the question of manned versus currearies space verboles Both RIVs and Fills have a purpose out there.

In the low outful were paint were because the period of the perio

a purpose du mere. Cesse il in bir toro vicini ware pulos were hororodi or then ambian of his is follow prive causiga dissol de ricomina fella il in in custigas dissol de ricomina fella il introcustigas dissol de ricomina fella il introhegar. The allochomos of a plori when hegar the allochomos of a plori when to single his family scene of hisse modern escappose patients is researched by the innavietage of that aripime if is no different than when it was strain - the Garmans in a

to be supported by the control of these reduced in the control of the control of

shoot and get out 'cause if you don't you've gorna get clobbered Gress Why did you write a book? Yeager. About three years ago ian Bahan-

the initial and gly attention were years then the special and the special and

Air force Base to pick up the crist history of General Boyd who chose the to By the X-1 and the first goal fall into shape. Once "Ware you suppreed to see the stock on best soller leaf?" Weege: It found it would cell at least a bundred thousand to arreston people. Others I we taken to share any people.

-

Take a year—to set tech schools and ever mally everybody who heers you if they are Own, but gong to be made sto a move? Yesper. My kids own the rights-size is re-

Crest Were you disappointed there was

Yeager: Definitely not. What came out of ate an applians in the region of the speed

lought in a war there's no person in the

Cresi Listening to the tape of your near Yeager high but there's not on party by

that if you're in trouble in an arctions. the seely furing from my pressure out bebeet in Bythetime started taken I said not" I know I had a fighter chance. Then

Oren is it true that after you landed you Yeaper I had to go to Los Angeles and My contrastments DCI

#### INTELL ISENCE

books but there is talk of clac of the month

TV all over again I says Lopez OWNION NE

Onry Orline comprises two separate but CompuSorve subscribers can gain ad-

Citys Origes second unique compofor them to take one more step to sake

a new vision diagraph system for consuctive

tres can be added weakly, daily or even hourly. This feeture, combined with the



How to the solution to lost manth's

4.969 = 3 - 3238 64,000 - (1,001 - 1) = 64 14. G06 × 51 + 7 = 1.017 16 (1.920 - 80) + 4 = 18

1 366-40 - 136

 $4.1600 \times 61 - 63 = 3.552$ 2 26-5-2 = 23 10 (800 - 8) × 54 × 3 12 1,600 + 714 + 1 = 2,315

22 435 + 2 - 870

#### GAMES By Scot Morris

--- Charles Lamb

tty OMSI



sector 17 was surprised to see my pun. No Keney's front yard and in the Roof Aid.

-Sean McEntee Burington, VT The Instruted golfer diove over the river

-Eng S Hahsen, Evans, CO I refuse to converse white eating lamb 1 -Stephen Wose Marri Beach, FL

It is colder than a teacher is well

-C Burns Topeka KS An EM programmer was taking about

-Mark Helpern Clakiand

- Michael Schickling Newhown CR We trusped each other-liet our memocre

- Dick Warranck Oxforedate WA I love pure so much that my wife made is

CALITIONS

-- Bob Trowbridge Portland, QR

-Willard Hardnos, Santa Bothery Cd.

Hamoide is dead battery. As the marter sold to his confused discuss. -- Michael R Wantok Carlston, M.

My brother loves Esterno outque but I

After Many Roppins was done with her

--- Manier Moss 2 Bans Park 256

-R W Harper Auckland, N.Z.

Drane C Elect Farter W. Two American subscromers were visiting

-Betrand A Lancron Low ME

-Beth Ryron, Granid Banyty

-A. Bradbury West Valley City UT

If you don't pay the everties, do you get Certicale Stan on the monotony of Spanish -Stephen Cartyla Cronig, Marin

Training they door do you think I give a

Sakinton to a taskiess pureter. Sc I

Christie Brinkley marries Billy Joel Activity -K S Lester Treasure Island FL

Requesting more too water in a Mexican -James D. Waterman, Florework, MD At our high school we were the Khighis

Flower you burn the posts, just explain to

-Robert J McCauley Houston CC



67here they were.

Little Cows, smaller Also dviy Stations

of tenyaki sauce 9

in a rambler 1 ties to drift from one ball to