

## AIDS: REDEFINING MEDICINE

## STAR WAR: AN ASTRONOMER DEFENDS ASTROLOGY

OF SOUTH CAROLINA

RETURN OF TRON: 21st CENTURY ANIMATION



### EOITOR IN CHIEF & OESIGN ORECTOR: BOB GUCCIONE

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### ő

Piral Word By Norman Cousine Can you will away your its?

### 10

Omnibus The Who s Who

### 12

Communications Readers writes

### 16

Forum By Howard Womorn Consors are thing to ond what they see as Stephen King to asset of before

### 20

Arts By Eleanor Smith Pat rocks With animals climbing the music obarts can grouper groupers his fact barban?

### 22

Space By Peter Gamson Cuting through the rod Lape: A joint Soviet/American elimbure coald ignite more than a rocket



Trepresents a mathematical applition of the second secon

### 24

Arthoal Intelligence By Lany Kahaner Cybernetic sleuths Flatfoots stop aside to make way for computer cops

### 28

Explorations By Ehainy Baker Theres an sprising in the South but his lime it is his deal Our reporter explored the glouish clams... because inguing minds. worth to know

### 34

Body By Jonathon Parindge On an impulse Surgeons get ahead on applopsy traceth

### 36

Stars By Jane Bosweld Dould your opriagh read streads bown in the Previc of Life Br



By Heather Phogle Stepchildren may suffer the some orcloals depicted in fairy tales

Additional and the set of the se

# 

## 41

the dirosaura, wople

Phoenx Raino You can't get enswere questions The AIDS even unproducter(ext procedures

Dr. Zodan centrity beings below









## 106

Interview tobe the al-American even developeng e hangever retreate

## 74

Fiction, Femily

## 114

The Magic Theater There's nothing guite 04

Fiction Tomorrow's Child Desperate to save has

Don't get med, get even-Halphabets, Lust son it around 140

121 Accumation ontile mutilation debute opens the apar to the "other side

Valeo Score By Bob Lindstram 100K OT ITEE YEAR IS

## 142

## 152

Star Tech

### 156

Last Word



# FIRST

By Norman Cousins

It is not necessary to bakeve that every itness is reversible, it is necessary to reach out for the best—the best that the physician has to offer and the best when oneself? Communication and is indepanding backnots any provint and a patient remiomical is a monochray basets and a patient or answer. Ber William Colari o and the grant control/bas to medicate is authing and patient and a carefully developed basets and a patient. Baset however, the legislass and a concernios approximate certificat or in certification of provident certificat of increase batterial approximation and baset.

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Norman Docens is a locality member of the UCLA beneal of Mitchane and subtrail average books. Including The Participage of Power: The Healing Heat: Anatomy of an Ticess, and the spontily politikated Head Feat. The Facinesy of Hate.

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ARRISON

MARIELA

ming on topics from astroopy to aschogy rear portful upon Massachusetts and Georgins to California and Betsin Countries.

Linda Marsa enthusastichy pursue har research for "Phoanic Raing Tgaspe 50 and calls if the mask exerting story stros ever vector. Marsa teaches at UCLA and most often writes on finance and health care policy.

Daves Bobel, whose setticitized in sign is Bernen with Aquienus reing, says is the managed to meet her deadline for "Dr Zochec" (page 60 theris to her mones bare in Sauss Bobel costmoned the book Arithes What Works (5t Martinis Press, Darboer 38b) with her hashand Arithy Klain.

Aul 6 Rights a through Chan contributor and them also within far Reports and Rolling Stong Het book betweets of a Hard Day a Might betweet of a Hard Day a Might Doubtedgy During the course of battingpang with James Scheder (Interview page) 15(6) Ray declined to participate in the well pains context held al Microsopease Hoggsbreach ballow. This in the well ballow out the Chard motion, fail their hand the well and object the second ball the events.

Aside from Ormy, Fred Hapgood tee privingually written for Shrivhidman. The Atlantic and National Geographic The idea of looking at computer animution ("The Mage: Thester" page 114) came doning his research at MIT where he's been hanging out while working on a book about the university.

Lisa Masion woon two ther isory "Demonse a Child" (page 94) alter working on the steps for a documentary about advances in the treatment of burn worms. Another (Dans, Downlose 1987) her first poblahod story will be coming our take in Ney 1990 (Minam Mercew) Javeo Dant Others (Team's Teace

Joyce Card Ottes ("Family" page 74) is the cleanguished lecturer in the furnermains of Precestral University Because X is Enter and Recause it is My Heart IE. IS Dutter) will be publaried next Acri

Lany Kohaner (Arhiroal intelligence, page 24) is completing a novel about senal leater. Here witch for Washingtorian Magazine, 7he Internationer Heeld Source and the Weithington Post

Peter Gainson has writen for Farsey Weekly, Hervard Magazine and Caronesisear: While measuring this month's Space column (page 23) hervard the Panetary Society which elecande in a lant of the contary floate in a quet too-lined Pasadem California street. If is cold had he premission for going to Mast should emanate from soch quality scrownings? In bags

Heather Pringle (Mind, page 30) has always been fond of fairy tales involving cruel steppenents. They all have perts of truth "swys the Cenada-Based setter "But my patents have been happing married for forty-two years Jama Bosweld (Stars, page 35)

Jame Bolovida (biale page 36) has been seen sindly her boycele accurd New took City white sporting a coath haima-for response ofter than table. The page is the seen seen seen octa of beeng atrick by an asteroid, are pathy high-more mist provement? A contributing adder to Payohology Tooky Boevelar coast-breed corteol Non-Desting Histopher & Boyl with psycholopet Jame Gester Kennes.

Eleaner Brith hoquently writes for Chrw and Psychology tooley. What impresses me most about Berme Krausteit annen music (Arts page 20) is theil int lively reck beat with annest younger lateners who might not bofter lo road about endersprend emmis tays, the Debtersh-beasd writer

Briefly state costant basive in professionary (LI) In the intervention of professionary (LI) In the intervention of the latent based when release latent based and the latent based latent based based on the latent based have based based by the humane have based b

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### ALCONG TRACE

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ETTERS

## COMMUNIC/ATIONS

### Art-Folt Praise

Typi received my September THE secue and Loan hardy stand it. The attentit is one popport and the twith passes and the ad your fault, I want to save it for hours. Not only is the oddered content of Orwa auperior the other content of Chrw auperior the attention and is even as high is admitted remortable another general megazine that was no extremed.

Lo Stewerf San Diroo

### Berking up the Wrong Troo

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> N Walsh Forest Hills Nr

### Setting Straight Your Paperhos

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CUP 3D Inving Place, New York, NY 10003 or call (800) U CAN+HELP Leeler Gotheb Director of Communications, CEP New York

### Freeze hand

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> Jon Dis Beckord Director Cryptozoology Musikum Maibu, CA

### Ignorance Can Moan Bliss

Fix score that Neel Bonne (bearview September 1996), who works an implicit menual patients, has such a single in view of society. Claiming prevident site for settingent, Sterste makes a storage case for a society approval exclusion theory as comparing supprivilege how that individuals. Data addy makes the effects interview as comparing supprivilege how that individuals. Data addy makes the effects of the The Society and the effects and the The Society and the effects of the The Society and the effects of the Society and the effects of the society and the society and the society of the society and the society and the society of the society and the society and the society of the society and society and the society of the society of the society and the society of the society of the society and the society of the society of the society and the society of the society o

> Barbasa Jankin Henderson NV

### Copy Wrong

A colocit line was control from 'At The Healto' by Comew White (Colocate: 1980) It should have read From The Moroyone Byton Press sofaro Copyright & Table by Byton Press Visual Publicaaone, Inc. Bepmice by pomeasor of Bentam Doubleday Dall Publishing Bentem Doubleday Dall Publishing Croup Inc. All splan reserved FOR GOODNESS SAKE?

## FORUM

By Howard Womon

ecroe Orwell's rovel 1984 opens with "It was a bright cold day in April and the clocks were striking thatean implying some

the cansorship described in 1984 could

works of art that were parkely funded Signano Heims took offened at Mappie Gallery in Weshington DC canceled the show Heims proposed a bill that would "absidene or indecent "especially religion or nonreligion

By October, House-Service requisitors, vilue, dropping the word indecent

1984 Eric torching as a demonstra ten against government policie the U.S. President Bush to propose a constitu tonal amondment barning the desectarights of Americans to show deservation

overwhelmingly approved a bill that would ban the defacement of Americanfag the Democrate amondment would

meke it degal to "physically defie".

According to USA Taskier under Chicappis tag desecration law approved in March. The oxy is presently play artworks that incorporate the face

Such a broad guideline as this could art Jasper Johns's Three Flags, Norman Rockwell's pantings, and the lwo Jime

Over the past low years the efforts of vocal individuals and small groupspolitical action proups as Phylia Bohlatly's Eagle Forum National Legal ton-have assailed the works of Stephen tunch of parbage ' They disapprove of



values they abler science fotion by these sterrary gerves. They're not real but the fittle is The logical step is to

orastal. But certan people will alwants on the basis of inappropriateness or and informatory and must be controlled

no methor that they re ultimately tales of

ideanas but idearies in public schools over multiplic acturation as a volucio for ensuring conformity with a perficulty sticology," according to a 1967-88 report on conserving in public schools. This report. Attacks on the President in Learn complet by Norman Lear's further states that the "politically conservolve vew "calcal threiro is denosi-

With those quickless. #3 no workles Stephen King came in third of the five most consored authors on the 82-R5 left Clurby Blume was number one "I'm very proud Fits in the company of greats J D Salinger and John Lipdia: states King who has been

In 1975 Carso was attached as "trash" three years later. the Vergennes Nermont High School Ibrary stacked it perents' writedrawal permission, after complaints that it could harm students.

At a Weigesha, Wercosen actori district hearing in 1962. Charles S removed because its "gutter language was macoropriate for children under and i always hear about sax at school and violance on television " said Striveli Stephen King a books. That's how I newal remained on the sheet

that The Shriving be barned in district

in 1995 the Budford New York, school board took Cuso off the Marary shell after a five-merule decusaion. Passages were premarked for the board's reverse Bond member Henry Bonastie said "We

graphic ' School Idvarian Eutoria Tode the plot overshadows the language "

The Shrang was challenged in Wincouwer Weethington in 1968 Kener Venema a reading ade charged that meden unsutable for teenagers. the cust words. according to the Newsjater on httellectual Freedom

were used "156 times1" The result. The book was removed from panor-fegh-

a middle-school leacher to Lify attendance and performance Russell against community standards." Floor was

In February 1987 the Iowa School District removed six books from the West Lyon Community School They don't clamed superintendent Frank Ashmore

Stephen King came in third of the five most censored authors But a banned list can be a source of pride. "I'm verv proud," said King, "I'm in the company of greats J D Salmoer and John Updike 9

alanced Instach" Carps The Dead being moving them at "I was shocked when I saw some of the words

Library in Westhampton, Massachu units, had experienced a rash of "Everysresulting in the disappearance of more tion were taken. 34 books that focused

Since Dotaber 1988 there have been In Green Bay Weccrisen, an attempt the actual board. End and Kitty Largen clamed that the tim and story Children Night Shift make fun of Christianity and

Paulette Cock, a school I brahan in Marden Connectous removed four Kno nouris from streture offer one papers. complained that passages in Different Seasons were offensive Other teachers, as well as acting board president John Mantzans, did not support the libranaris action. "I yourre going to define a code of what's otherssen, and Marizana. Tm not sure it should be only a librarian

James W Jackson II. a Clearwaler. Iman of God ordered with sufforty and responsibility," select the Pinelias notreausness" and remove 7he Shring from Cleanwater High's Masary. The school board refused

And Quo was taken from the Berrywiki (Arkansas) High School library even had lated in its assigned twok" after Care was 'page after page of carbage

America topkay may aspec to be a kindler, gentler return, but some Americars despise works that read against the norm-a rucio on the cover of Newswerk, for instance, or a flag on the printely tried Whet is the Proper Very violently copicise easy access to much

amost simplicitieshy framerie and moral his works are prejudged as weed potentiescol regulation for writing horror and how can take of terror offer emovariant cuastions. Does the work contain margin into the human condition?

Constraints in really about fear the imaginations. Morsi watchdogs claim they se crussding for the common anod Iten anything presented in a book or tim No mater how offensive a work may be to any persoular group of people it may at the same time, ofter valid vews on somewhere will find of value DO

PET SHOP BOY

## ARTS

By Eleanor Smith

crisis of endangered mountain ponilas in Rwands musician Sevaral days later he slipped and as rebardy toking the ourribetions. while the contais bithdy munched en bemboo shoots, bereiv ultering a sound. On one occasion a largo make his ordeanase, who dougd headhest into a patch of nettes to escape the attack. In the confusion, they lead to cack on the

hours of the confile yocalizations. All receives, children, domestic antrole tigen nearby villages, and other sources Kravage loments, 1 in the far reaches of sives outing down the rain forced bullckurrens cleaning reads, and motorboots hauling timber down the miletfrom beauty miles away it's the acarosit.

Known has transit to such amongst Anterchos, and Belize, in addition to Indutes Then, back in his Son Francisco studia, he creates a unique lanmot resards of nature instead of the tradtonal castar drams base and offer

Lisst year Krause recruited four Wand, 'programming whit?' Tony Mills. 20 DMN

reloased a single titled 'Jumple Shoos In the trist rep recording without human up ton spoores of ten on Tesh When Both menors are included on Goollass

disc recorded by Kissewa group which multiplitaway of musical styles, mountain contine, elephynts, and charanaropos grouse's chumiko call

sounds at their music, of course sometimes called "the lather of New App



Cat Ballou Composing the cells of the wild

music pronomed the use of whales Seveniles Judy Collins and Pilul Writer also testunaci whole scrops, as well ne woll howls, in their recordings Since Other Messaen and others have sprinkied in bad cells, cricket chirps and

Fow musicians however, have made ot composition and electronic music at has presided computenced music based 1985). And the British pop group Gentle-men Without Weapone KSWW) recently

(A&M Records) GWW sport a year anoonting loads and markeys in Tripland England, everything from lagers and carnels in weblie parks to the sounds of source production balls striding weils vorzela by a menagorie of rock stars. and Fisstwood Mac-will benefit rain

moved however its nearly movestile

With today's technology, we can take www "it oners all the doors. We can do beliads 1822, God knows what 'Such equipment as digital auchotopy municiping to make superty recordings of



## MARTIAN MISGIVINGS

## SPACE

By Peter Gamson

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The equip is not that the problem mathinacional, it the way hey field. The problem was poor puttern alwage and poor instancements, says Clarks is Brouge Marray former hered of the al-Population Lidowinds. Ale status was that can be alled by one of stranger handle and the status of the service clarks to quadration a subcolal command themanisms in relation to the sum when themanisms in relation to the sum when themanisms in relation to the sum when

Introllent in Sovier Updates Law due to the introduction of the Sovier space program. The people who build apacts of the processing the second second second memory of the Paraseter who are notify the memory of the Paraseter who are notify the second of the produces are full and the produces are set to an elegen of entered. They in the containty herefore an produce general concern herefore an produce general concern that are provided to the Parabos to a given project. On the Parabos mesonar, bin roles, The builders hall, low an acceptual released for some other purpose Engineering and production people din't communicaties with coentrals. The extent of this internacies written in the Soviet program became other when the chief internatities and acceptual externation there to the Soviet Internation for Space Theorem was a long and wherman there to the Product program to discussions of the Product procession with mocrypeterce and inscipate/bit/?

A two years app American's might have list a cartain glad over Bovet haves in space But two US sevenada in Moscow when the probas wino exponencial were partopating in the Photoe exponencial when the Bovet withdus Taroid, American's lost out too.

Andrew hagy was the such town A space assimpt at the University of Michigan, he had worked for years with a fungemen group on a plannemeasuring device for Phobos. Remembeing the many successes of the Soviet space program. Noever, Negy



We a beinguel means there my relations?

is largeing in the United States, success is so important. The says "We design in it or to parton's readelity but to 40 999 percent and this extra referement costs is grains daid of montry The Pussian approach—thry moke and everything—may meke acree error. Yes 59 percent system any cost area than one 50 999 percent system.

Is there that a Reference and Device spectral parameters Analyzed and Device approve but here device a start Device approve but here device a start of the weather exceeded and parameters and the to be exceeded and the start of the Device Sector Device and the Device Sector Device and the weather and the parameters and the Device Sector Device and the exceeded control to approve means of the properties of the order means on Announce Mark Device (Sector Device on Announce Mark Device) (Sector Device of the Sector Device) (Sector Device) and the Sector Device (Sector Device) of the Sector Device (Sector Device) of the Sector Device) (Sector Device) (Sector Device) of the Sector Device) (Sector De

The next Spokermission in Mars, prevent for VAM - with Annohriess attempt to take advantage of intervations to Each Totacian spokersage of intervations to Each Totacian spokers handware and boldware obsored the Mars Collevium American Extension and or growes and advancemental and or growes and exception and them Soviets for their bart exercised of Mars

The Herniserier an almospheric physical with I fan Dystema in Los Angeles with a loading participant in the project, is diamonych by the lack of tasse cystem amiyinii (the lack) of what to and how to do if on the parts of both the Rendh sed the Sowiia. The engral pain was madeculot he ass. All the offici went into detailed dosgin of histotweys that may ultimately all casalaws of bistotweys in the competitie according to the source of the source of the source of the source of the competitions.

To very clear "Henthermerates, has it international ecoparation in space is to work, you have to institutionalizer very formship and very carefuldy in imparted studies and analysis group. It has to be international and it has to be unbased in a medium in producing the meanail Apd at the moment that just clears in toxis. CO

## HARD-DRIVING DETECTIVES

## ARTIFICIAL INTELLIGENCE

By Larry Kahaner

They found the body in a desky most room in this seekded part of lown. Letry a herd/held southere, the obsorber on this source usage the source for hair and througe minineewing an exception of the advertised of a the chips paged into the obsert advector. Then he support advecting the obserts the see it. The d is soor correctiontion after the group of the desk of the advector. The herd is soor correctionadvector to the where it is obsert advector to the obsert of the desk advector to the obsert of the desk advector to the obsert of the desk of the support to the obsert of the desk of the support to the obsert of the desk of the support to the obsert of the desk of the desk of the obsert of the desk of the desk of the support to the obsert of the desk of the desk of the support of the obsert of the desk of

It sounds like just another cytempurk fantasy but forenso experts ally the may be the halaw of packed work. Include antically intelligent peocekrepping is already cleaning up our streats. Thatks to adverses in computers weapony beargingering, and cytemptors

Accessing in Charles Inst, Joan of the Datage of Ommer Leebe et Sam Houses Sales University new Indinace/ application is a workshorte orms involtigations in a workshorte orms involtage interaction of the Sales of Sales Kentucky, Drogon and California new use computer and subermatike bar codes to keep Inski of ovderco from owne open bot outmont

One of the most inpactant new solvanon programs developed to ad pote on her investigations in FACE DVI a year of IACE can take a subject's body type gender, most and physical heath-and construct a pote distance of the newholds face. What is not, the pergamic on theorem which this person's face would body her during any that processing and the during any that processing and the construction of the processing of the processing and the processing and the processing and the processing and procesing and processing and processing and processing and proce

Far more apprinticable approaches may be available to poleo in the nottoo detant future anyo Fael. For example an ex-ollender—as a conductor of the packles—mgl submit to the outcouteneous implemented or an electronic timemental by using accounces similar to those employed in tracking cellular Incluie phones, a computer would have and locard he particles movements At the earner time, unafare computer would read through the postal instructs of dame. Matches would more important the paralleles promity to the opene With reformation history to the opene With reformation history to particle and police outble policy of question and or different deemed to have them to occes in the instruct a growth ride in purchased in they donnow itself inter-

Bid Tablydi a supervisory specifi oper for forecasting and those initial pleasing at the FBI Academy at Cluaritoo Vagnia has another hubinetic onne busing solerner his hopes one day to manga SACK with hobes pairor tochnology. "Using a tapto computer amorecasting upti at the crime soler it amorecasting upti at the crime soler is associated and and the crime soler is associated and the soler is associated and the crime soler is associated and associated and the crime soler is associated and associated and the soler is associated and the

As for turning denotives themselves into supercops Wilham A Bayte an



Computer billing. Shere's marks do electronic

senses the discuss of the HBI Secture 34 senses belows or profit out has perform rank of bits to make a before care an beaution belows on the sense of the sense beaution belows in these of calestance beaution belows and the sense of performance to accelerations and the sense of performance description and the sense of performance consorting and the sense of performance description and the sense of the sense the sense of th

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According to Free in the future entitlated intellingence accordingly an even import value in the logal system. He suggests there computer orthwave round the developed that might one day be able to halp procedures presence cosses. Developed the eventment, as suggest is prior record, and the severery of the orms the computer will devade which cases to present and event

## SOUTHERN SPIRITS

## EXPLORATIONS

By Sherry Baker

Catalon and a cat and begin the hour-and-a half drive up US Highway 17 toward Georgelown It will be fun, although maybe a little sky I tol mysolf. as Charleston's lights lide in the distance managet foo rolls of the marshee. through the mixy pane trackets. And I

phostbusting tour of antebellum planta trans certainer-old town houses and Georgetown and the surrounding area Local actors don artigue costumes

world, but this area seems to have more of South Catolina's Coestal Carolina Colmontal expension myself But I know many highly educated people have " stando roue sy'vent tweed ob ode

old geocutive director of the chamber of partmenos, who came up with the obost tour clog, has his own explered on for the regions supernetural basis sonow" he says "And the area hos d in the self air, bear d in the waves. feel it under the bacs "

Georgetown's history has been rife events that balevers in the peranormal say atract chosts. During the American Revolution, for example Georgetown lowalists crustleand British spickers And Frances Marion, the leopodary Swartsp shriving and datappearing so quick By the trine of the Chill War the

Gapraetown area was one of the notwed regions in the South. The local staves, making up the rightst per capits population in the South. had carved out upheavel, with fortunes lost and families deetroyed And tombstones list fretol taken not only by the way but also by

Linder a cowned porth of the Waterman-



Linderhausts Will the South new accust?

Oriental parlame that he had bought ended her subarris. On summer richts in the house have reported catching whith of a strange aforral Sometimes.

looking the meandering Sampt River the anarres waars skaleton corrects "We all loss our chosts ' she saws pointing out Barbers Baxter who owns a Georgelown terre purportedly houried by the spell

Learmany other people in the Low monorthers who ward to "take our chosts mampin, wanted to nyver/agate her home. Biaster says "But I didn't work them to bust my phost. We like him

traveled by horses and bugges. Sharted brush the plantation takes on a misty speeky cupity. Having land he entry life Inne wan-old Clarke Wilcox rate on the lengt possib and win the stary of filteen year-old Alice Flagg and her ghost into them in to see the portrait of the 'Heis not related to her,' a territy member talls me. "But I ready believe that his others has kept him alive all these wasts?

A pain hours in a sweeping when dress momentantly startles me Aporen ing from behind a tree, the young gril incriments the choil of Alice seaming the sing Herbrother who did not approve of her socially interior suffir had dying from malana in 1848

By late afternoon. I ve heard countiess other stories, but I still haven't seen any ghosts felt any strange fragies, or day's tour near I hurry to the antebalikm crossing the Santoe River When I away But assuming the house is still open 1 race over grassy hills and past

Three are no others, no park employpatieng lot and the road, in the midst of hands over the gent white columns. coks stretch their Spanish-mass-laden gnaried arms conying ancient tarbased into the surrounding dark woods. The

Weiking around to the back of the house I follow a call the Dwarte Fox Cullwated at Hampton Plantation before covered prave of John Henry, who killed termed in an upstern bedroom in 1839

starting on surs of timelessness. The

The next morning I meet Winston-Salam parapsychologist Jayne Ware and her associate Fiora Yarbrouch, who pate in the phost tour again this year Im a sensitive," cays Ware, who claims

A redheaded, chein smoking grandmotivar who citages a Chatter with with departure is When belowers the Generationers area is the retions "hot spot" for phosis. conditions, and it a impressed on the atmosphere' she says. 'We set don't over

Plantation Ware and Yarbrough wandler frough the empty rooms. Were ableant

chority visitation. To reach it, we travel



in a window But it is no apparition of John I road. These are no houses no stated lights no other cars. We finally stop and spires that raiss out of a tangle of black-eved Susans, fool-tail grass, and

> wanted this place of woodsp to reflect their success Elegant fumshings and hand carved pews purchased in Europe blockades kept the rich appointments and left to crumble and nearly disappear

> Gunn a Cabbler in the black arts was place as his body slammed to earth figure waking the nonsettent codine And at the exact moment the run sits. last year and so cicl a television sound man "ohe cays "It lasted only a few seconds but it seemed like a full choir

> With the sky washed in levinder archid openings, past piles of rubble. I look up at where the church bell was meant to hang and Gunn's spint now allegedly walks. But only a pircling have

> cuartery parcents us into night "Listen;

my having seen any phoses 1 answer lably Frough town The brick warmounter

A lovelorn woman used to signal her path to the same gorden of laurels where just in her room, but when the door is operand, there is only blackness nakle

Tarbox saws. "I would hate for anythin to take the phoets away by saving it I didn t' She sichs as her eyes room memories and ghosts look alker" DO

## ELECTRIC BRAIN WAVES: ACID TEST

BODY

By Jonathan Partridge

In this case of the performance of the performance

The lased Mich model is LM in 2009 Indexes bit depth of Lmmsk is interaction be the model in LM in 2009 Interaction between the laser of LM interaction and LM interactions and

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Epopole, which about 1 meeting that persone revolution miderichial chain reactions in the train. Collader or controlle groups of memory and that or controlle groups of memory and the second second collection of the second second second collection of the second second second memory and second second second second the second second

Accur to precive to all epideptics one control that encourse with chagaablest ones with insteading validities dedesities. For many hyper is applied to deal ways, there only hyper is applied to be the second one of the second one of the instead of the second one of the second instead of the second one of the second instead of the second one of the second instead of the second one of the instead of the second one of the



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the United States could probably benefit from regeny. Obviously the says, here by an account under theorem of the surgical teacher of upshape, and the case to the diffusult and time constraining mediatabin process that required besistation process that required besistation process that required besistation process to could often a to achieve the besistation process to could often a the process the second besistation process the second bits of the teacher of the second bits of the second bits of the second bits of the teacher of the second bits of the second bit

While the committee of mittee of all measuring bars where — electrons to descript the partners where and bars and the second second second bars and the second second second advances that approach second second advances that approach second second advances and second second second second advances and removing the window and second advances and content and second second second second second advances and removing the window and second second second second second and second second second second second and second second second second and second second second second advances and second second second advances and second second second and second second secon

NEG measures the megnetic teage entried by the branch discription involves so protectly the discription can propert the centre ditte factor when tense memory and the factor entries and the second second teage arms magnetic teid is more than 600 a00 free stronge than that ensemate from an individuel's bran, it an application team of the second second NEG system must be contained within a mean table teided from

The opposite in the reserve the parter where the part way the part forward or a char, has been beneficial work of a char, has been been the model work of a char, has the MGS system is more and a charge of the part of an establish structure, about the part of them the use it. A strateging of particular them the set is a structure, and the part of part of the party is placed signature to parter them. The MGS operator uses an adjustment part of the part of the party is placed signature to the party is placed signature to the part of the party is placed signature to place the party is placed signature to the part of the party is a placed signature of the place place is the part of the place signature of the part of the place is the signature of the place is a signature of the place is the signature of the place is a signature of the place is the signature of the place is a signature of the place is the signature of t APOCALYPSE, HOW?

## STARS

By Jane Bosveld

ose proce to rightmanos or parie: attacks may not wont to course with planet Earth. Someday it

Of course most adapada-flought splar system's brith-pose no finald Pail a good number of them, the Earthgasers as frayre conclines called meander through space in orbits that being them within solving distance

For the most part, the general public has remained blisslully unavore of ton Putnuc geologist turned asteroid cracity, he had taken with the 15-inch providually unknown asteroid Labeled

1989-FC, the asteroid came charging toward the earth from behind the sun and have messed seventing into our planet. peeping lease than 450,000 miles awaya harbreadh in extelemental torris earth than any asteroid or correct ever Institute in Turnery Arrente. We estimate that an obsect this big must come by every couple of years but we event hand 'Well after the coast was clear. The

Asisophysics Observatory in Cambridge Measurhunets, to the presence of 169.EC astroomers turned ther fix its orbit and measure its size. We have 1999-FCs orbit proved power pretty well, ' says Holt, "and there is no doubt that it will come very close to Farity acres probably much closer than In Artin March, Indeed, 1989-FC will



Astrol projections: Doubl is calculationed food the size of Manhattan desizing the earth?

must by the earth about every 13 months. wriths something. Sooner or later he says, 'the asteroid will collide with

Although astronomers were unable to get an accurate measurement of the a herwood 500 and 1,000 tret in dame for Had it hit says Beven Franch peoprieth scientist at NASAs Solar Surdam Evolution Division, 1989 FC spuid aan mikes wedge. The force of its impact potential of 2 000 one-megation hydrogen studys invelop everything within a 50says French '9'rt he the ocsish. If would

The last confirmed asteroid streims atched the earth with craters in present day Ghana and Russa more than a milion years ago Early in this century a above Sibona. The blast uproceed many tree within 40 miles of the cletonewindows broks, and 450 miles away a that he stooped his train. Waves of nonstaute rollers as far as England the planet, setting off seismoorsphalater: Suert J Ingle writes in Plan ets. Stars and Galaxios 'the Earth would struck the city now called Lonnorad

a matter of time before were hit again Chapmen has even tigured out the odds of a cornet or referred collision There is one change in feenity thousand of an object as big as 1989-FC british. the earth this year or any other year. The

## THE HANSEL AND GRETEL SYNDROME

## 

By Heather Pringle

An other starter of a staff month by any mole larger and the staff of the staff of

To Marsin Law and Molgo Wisbin 4. Molvacer University in Humilian Distance Highly realiting of this langur story statistic a chilling question is human behaver also seekyed by such evolutoriary satisfaces? "We solved graduate adverts: Wisch happans to slepchidees?" i wasanch psychologiet Wison say. With hold rearry normality consuming neerly two decisions of parental devotion, would parents naturally axials as much care and patience on stepchildren as on biological children?

Like and what dig thousands and postskin average and biological postskin postskin average and biological postskin findra (biok ctas on departed findra (biok ctas on departed see Aud (biok ctas) and biological postskin see Aud (biok ctas) biological postsking biological biological see Aud (biok ctas) biological

book Homorole the Canadians have strend up heated controversy Opponents



Should cheld welling agencies keep a closer walth on levilies with stepchildren?

charge that the psychologisti pairt and unscoperably basis volve of human behaver abilitying the power of hose will "Some poople read into it that correr is bacing pairly adtermined", style Lawrence Concer, professar of sociology at the University of California. Deve Additional for exclusioning organization Additional for exclusioning organization as as strong as that of the opposition as as strong as that of the opposition Date and Willess Interview.

Day and Wheen, however opmes such interpations. In no well as well ever meeting genotic arguments in a controlling activity. Saye Wellion "And Trais what people mean when they say its all determined. We are just human payote, yet humans all posses the ability to make chooses."

In professionary spots, the executions found that retries takes of American hermodoles had allower that 50 presented all machine mysches bents in material profession and an advantage of the second second networks and annual including Amor sepences asket inmostratily by reproducrational and an annual including Amor sepences asket inmostratily by reproductions and annual including Amor sepences and annual including Amor sepences and annual including Amor seplective mathematic and the allower the topoder temp between people the more cooperative and annual bases haven to be topod reset.

To ball their theory, Dely and Wison approached the Damat Police Department to nanew to homicale free. Another researcher hed already compliant a detabase of Detroit homicales in 1972

Sing introduction for detection files, they associate to actionard identity understand and the actionard identity compared with the actionard identity compared with the actionard action later and waters in the file action later and waters in the indentity between killer and waters in the indentity between killer and waters in the indentity action base commented by factor standards when the intervent outpercented actionards and the indentity of the action when the intervent outpercented actionards and the indentity of the action actionards and the indentity of the actionards when the intervent outpercented actionards and the intervented actionards and actionards and actionards and actionards actionards actionards and actionards actionards



## CONTINUUM

## THE BODY SNATCHERS

Frequencies and a set of the country has shared votils, going as 3 to backing the set of days of the Contractions. However, the sequence of the Constatutor. To Benjammer Nash, retained the labeled power going for exceeding financian, which the destined to be as examinal as magazin frequencies. The end of travelers to creat other the second results is called a set of the second to be an examinatement of machine and an other set of constatute the Benefitie of machine is well. All such laws are un-American and destinate and the well.

The time tase come insertion is make ablencial to the oversingle C and gastices cognitization the Contrator for Alivanatives in National and Healthouse (CAN44) is deviced a Healthouse english at the Contration of the Contration of Healthouse instruments and the Contrational Contration of the National Alivana (Contrational Contrational Contrations) where ablence the contration of the National Alivana method ablence (National Contrational Contrelational Contrational Contrelational Contrational Contratio

The holds holds make in movement, and our page proceed to other sequences of the next holds and and the second second second and appropriate mattern begins and and specific second over bodies— not as which housing a most and and specific second approximation of the second second second and specific second and second second second second second second s

#### mas have been invite to get in touch with vo

Backgroups of us have repermented with allocation types to extract the set of the set o

The Synchronia control Holdhold The Davidy Crick Headedow to crick order control Holdhold The Davidy Crick Headedow Davids and the Crick Headedow Headedow Headedow Caseb into his holdhe and cricked the potential or install-material control of the Crick Headedow I machine insplicit CaseB Nos now Norme Between I and Change of machine insplicit CaseB Nos now Norme Between I and Headed Change I now Headedow Headedow Headedow I control headedow Headedow

Even though Caldo was born sole the had two paketis low and allection. Susceening here was inserved from the horns—for what? There is no suce fro nemedy for cancer. If he parents choos to step one form of herespy and hysical addantee on they not have the neglitic makes that deceard? Removing Cales here the noncenter who here the interest case.

Dr. Catterner Franzpusch, wini Kanskad, CANAH. Betrevold, in an endage of time before Compose tables for the maint: Cause Department of the characteristic cause and and cause of the characteristic cause and and cause of address will be part of headman. The American spatial setting factorial y volvariable and the well-internet log parts to the dimensional generation of the address will be part of headman well-internet log parts and defend our most precasa wave and, is is the bit walks up and defend our most precasa wave many, is is the bit walks up and defend our most precasa wave and is is the bit walks up and defend our most precasa. — AUM BORMAWI



## CONTINUUM



licking toacts is the latest-

staal in 1991 and contras he





this music Nocky Punching weboot the pain

### SHADOW BOXING

To use elverys cleatered or going a round of two in a board may, but you here the regist of bload-weight of bloadsept of bload-weight be pain thanks now Computational bloads now Computational Backow Board from the New York company McKontomore of the forement Just sign on the forement Just devices a state the ring, and sign 6 out-without character contact.

The insparation for Complements Sharkow Wong caretin tomin home visio genome which the player sparmet with a computer improve When Number Sharkow When Number Sharkow When Sharkow and participant the sharkow ments of a human homo, and a human ho

The basic sydem which

#### sile for \$200 includes two

table of the introduced basistion of the introduced basis of the interview of the introduced basis of the interview of the intervi

Thinking is more interesting than knowing, but kes releasing then looking ' ----Wolfgang von Goethe

Hawitg a family is like hoving bowing alley installed in our brain

Marshall

### SPACE ELEVATOR

It you worked on this top list of a sityscraper you wouldn't get into a recent filed with replacive lucit and blast up to the office every day More listing you'd take this alewater it's safer, cheaper trans camerant

Here many years solutions brave for their that is the way, we should much low Earth orbit as well—with a space devalor insther than nockets and space shuttes. The problem is of course that it workd besid claminal intensity.

#### 14's 22 300 miles to the orbit

yourd like it to reach) and there are no known structural materials strong enough for that height

Now all limiter space scarstage, Plaue Beach, has come up with a plan Latanch sources of lateotromogranic costs and constant and hallow label; encoding the gath live of and limiter conducting work introduct partice of the tube, which exclude put of university prevent structure and prev

Write yourd internated is a solid mount ingetter a la solid mount ingetter a hard at ally trade is not writen beneficially trade is not beneficial to the solid trade be built transition of be built transitions of bearts. Proopie and experimenwould rape up and shares of building aspect atlance of trades and the probability of the solid transitions of the solid respective of the solid transitions of space launch paos whole spaceships could begin long purneys without having to carry the enormous amount of fuel needed to excape Earth's atmosphere

Jerram Peesson chiel of the structure of peints in structure of peints in structure of peints in the structure of peints in the structure of peints in the structure of the structure to could be built in 23 to by years at a cost of as little as 520 million the structure in structure as 520 million the structure of the structure of the structure in the structure of the structu

No cavilited person ever goes to bed the same day hi gets up?

—Richard Harding Daw

"Liswant natheng 1 redecover"



Just privin D for Drait. Receipt may someday be getting the shaft save a thirt sometical, in favor of an chovator 22,300 miles toll

## CONTINUUM

#### GUNNING FOR LEAD

In second-rate crowlooy moves guringhts togen with a standard threat. "Git rendy to die cause im genns kill wur hij of lead. Wait in tame out staat you dan t neod to get shaft to wind up with a body kill of lead. Just sport time in an incloor petiol shopting range

These wata Join Marrys, Infer to Course I wata Debrato and Sharth E Several in Abuquetan Health Bervale in Abuquetau New Meado Suasi Anna Health Meado Suasi Anna Health Meado Suasi Anna Health Meado Suasi Anna Health All Meado Lask on Theology a these methol theory a theore methol solution of the Terry Mad Beand Administrations and Health Adm



Training teachors: Police recruits face health horaids.



New were sorters just can't price depart. Dilanges allong the Celebonia calcul and chairing beach doys and terte into increasionaly simpler areas to await the big one.

Athough none complained of any physical problems mate sensus than a chronic metallic taste in their mouths Werkyw parset sub thill the neurals are all high rak for suffering other mans in adous symptomic of lead personing slowing of reaction time lass of coordination and danaget to the control person extern

Merging attractes the interaction of the series in the interaction of the series of the interaction of the series of the page with encoded for an interacpage with encoded for an interacproperty with them interaction be expected with the series of the competition of the series and the code of the interaction of the interaction of the interaction of the page by with the series of the and page in building worksheet the series of the and page in building worksheet the series of the and page in building worksheet and page

### THE ART OF MAKING WAVES

To like the problem of somany fail and indication and encounwater. Only in our case its soimany surfers and not encount waves says like Hamblor of the Surflade Foundation is California location (surflade California location) and the california location is protevanon that flagats is initial antique change seets to will multiply the number of blochm treated on the West Case.

In social years have be of califormers prime sufficient opositions bon tool due to be conservation of new ferences protocol sufficients hardness and protocol sufficients hardness and protocol sufficient to provide the sufficient of the protocol sufficient and the protocol sufficient and the protocol sufficient and the sufficient and the sufficient of the sufficient and the sufficient of to insertion this student by containing the fail and tool of ref instruction works while phases instruction works while phases in a foundation of the phase instruction of the phases instruction of the phase instruction of the phases instruction of the phase instruction of the phases instruction instruction of the phases instruction of the phase instruction of the phases instruction of the phase instruction of the phase instruction of the phase instruction of the phase instruction of the phases instruction instruction of the phase instruction of the phases instruction of the phases instruction of the phase instruction of the phase instruction of the phases instruction of the phase instruction of the phas

The buncksons goste neal which will be built as a state beach in Ventura, will cost an isdemaid \$1.8 million and could be com pleted in two years.

-Stove Nichs

Excelentation means that no are also can take a bath for you

--- Onimon Schwartz



lights note: This chamatic ally disjonied Beacheven

### LEFT FACE

Decemp whether to give your chi at make kelosion? Parahar than checking his lenger destempt grantinge you should destimate a kelosion on synthese of kelo or nght teaced. "With nise as exponent, all been team of the performans—antigers unabumentalistic, gizz at 155 composes conductors and expin country unable antidation composes conductors and expin country unable performanare lef-laced laxyb psychologet Kat Smith perference

Just as most of us and other left or right bandod most people have a most dominish. Taable facts side that stores the production of a parch. And artike fand ochoos: says Smith, which entil determined until at least age two or time. Taachtess a depided before birth.

Most of the great composers including Boethoven Brahms, Schubert Tchakov sky and Liszt were felt aced in some cacas so inamatically fas to almost depart their local." And fally Bipercent of the opens sing ors who ve performed at the depin the last. 50 years have seen left faced. Smith says

Jord power set of the the demant rate of the three and this demant rate of the three and this demant rate of the three and this demant rate of the three and the set of the three three the three three three the three three three the three three

When the Rozzi

## BLOB

on a central it could have been a blob from the middle of the earth that dat in the dimensions. That all least is the theory proposed by David Loper and his associack Kown McCarthey of Florids Sade University.

Loper a math protessor suggests thet every 2016 30 million years a blob of motion lava parhops 100 millios in demeter broeks loose from the D- layer the pert of the marke that revis dencity on the series costs

Because it is tower in density than the matianal elower it the blob or "dappr slowly floats up through the martie biking tens of mitiana of yoars to reach the events is uthan

Some blabs follow the path of a previous motion mess traveling through a zone of weakness, or plume in the

#### mental When the data

finally reaches the surface if produces a gentile nonexplo sive eruption

A biolo that blees a new path - beaview motives of a slover rate and grows quite large as it continues to be with results without blees to be the start of the start of the results in classify and a viption with messive cuttlows of large general mess that, that results a class of a basist

Increase are accurd in a count load basiste around the world. One in India, called the Descen Traps. chiler very clearly to the time of the dinosaur extinction.

Although the ideal is philosoft bis Lopar doesn't thrivit will ever close the book on while toggand to the dirosaum. The diroceum extended buents texplain The correl-most theory doesn't region overlying but netter does my theory. B & Device



Exercision from the center of the earth. Add another theory to your list of directeur decret scenarios, this time a motion by box dirt if



## CONTINUUM



Asingny because perform high were acts. New shares of increasions bype are eating every at contentration evens.

### R.I.P. FOR PCB S1

Error be locative polyter polyter lighter war to assert that Mather Netsen has unleasted har own weapon against PCDs is a class of solar chemirate and a solar to be what we have weaply industry the solar chemites at General Bectros i Passanath war Devilopment Center in Schendstody New York have discovered har new states of bodana the Inext on PCIs

Developed in the Thirties PCBs or polychior naced 45 cade epternyls were barned in 1979 yet an estamated 446. Here pounds of PC3e have bound their way into the smeroment through idegal Sumping and leaking electrital bandlomos. At present and can only affectively lossibly their through coothy addition of the station of the sectory them through coothy.

Intercol-samp datation are not the test organisms leaven to instatucian PCBs but they are easily the most variable. The new backers discovered while combing through PCB testing sol device more than 90 percent of one of the most common PCB modules, and 0E scan asis hops to harmos purhed stars. The crosswas as analy facility taxon by the asystem to suggither to Superfund seatch claimups difficult. Were inying to impose their washing through purket organisating and related sebetom styrs imserved spectral Demis

## LOOK WHAT'S COMIN

Hencentral when avyob come unknown out of the size in 1970 Well heads up it, may happen again. Unless heads up it is that the up to service it in time the Long Duration Espoque Reality (LDEP)—a 30 lear-long 2000 pound service assister (LDEP)—a 30 lear-long 2000 pound service reality 2000 pound service reality with scientific apperments wit come crashing back to Service in 1980

The LEEP was summaried in 1984 to test the offects of space on a variety of mate risks and was supposed to have been picked up by yee in ordst Thesp para is changed however, when Challenger explosited At the time scanttask by used that the LDEF could stay in ordst walling for a subtile to statege at until the motions how however, an trapsodicted motions in altitude plane days, the motion plane days driving a solar actualy, means that the stability will seef for the atmos planes days driving to Bill (smart) Holds that according to Bill (smart) Holds that according to

MASA currently place to parkup the LDEP in the enducine on a acound Docernenduction on a acound Docernenduction and the second Docern access and the second Docern place and the second Docern Access and the second Docern Access and the second Docern access and the second Docern Skylako parts of the LDEP activity and in the occess access here the second bear on any to place access where these on any docern the second bear on any docern access and any docern access any docern access and any docern access any docern



MEN's LDEF Longer that a school bus heaver than a pair of michaels and balan back to Fanh

#### RETURN OF THE KILLER FUNGUS

Since the introduction of periodian people haven that to very actous Sant Anthony's ten the veulent step relection that left flockands dead in moderal times indeed the cleakes is maxing seen these days. But the cause is still among us

The intering again is and hard constrained in the many common gradies and games multilling cuscle and other gamese, who writer nys multilling cuscle and other gamese, who writer nys multilling cuscle and gamese, who writer nys multilling and the gamese with writer nys boot stady. We don't anys boot stady. The states anys boot stady of the states anys boot we have in the states anys boot we wont in the states anys boot we wont in the states anys

LaMondia attributes the appearance to leaf year's



Salet Anthony site Para

#### both grings lew vieucu

automer in one especially sloping held the says the bover pertives water and had a higher incidence of the lungus than det the higher, dryar part of the field.

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### CAT TUNA-GOOD FOR THE BELLY, BAD FOR THE BRAIN

Cat fanciers know that their pets favorite food is tanie Unfortunately two Cornell University researchers believe that tuna may be hazardous to a cat's mentel hesith

Convel velocities RATH eme A. Houst and special get Boneld Lek fed all heishelf tuna cat food to sec kitans from the time free vero six weeks old until they reached the size of east!



Mouny metal. Actives twee it: doct researchers and it craining social causes young felines to take more cabragat

months: Another group of switchers and scale back while the backword of the backword of the backword the backword of the backword of the backword of the backword witchers where decoded lytest vocal lass above and less preyful than there been exting fetble as the backword witchers backword witchers and the backword witchers and the backword witchers and the backword witchers backword witc

the copie interpretation of the comparison of the copies of the copies of the technical and the copies of the technical and the copies of the technical contained from the terms as much motivatives are such.

based lood, and levels of the loop metal were found to be, on the average more than len times higher in the tune fed cast brains

For humans, who mght may be notived to look advances there human collided services the net runs remnés us had the burn in collided is form the net man collided is form the net man collided to the fait which that in poople tool is whet meet. For cats experisely growing cats they may advant and notice patient products with two theoring — SE Lawren



## CONTINUUM



## ARTICLE

Out of the ashes of AIDS, a new society is emerging, altering the way we care for the ill, how we define a family, and more

## PHOENIX RISING

## BY LINDA MARSA

On successful and eventual of a successful and succesf

Mecopie views otherwave might not have gots numework in which core serves have somework in which core serves have the ARD creat. And that which the different serves and the serves of the serves of the ARD creater that literate and the serves of the serves of the article and the serves of the serves of the serves of the serves of the serves and the serves of the serves and the serves of the serves of the serves and the serves of a second without the serves the set should at the serves of the serves of the serves of the should at the serves of the serves of the should at the serves of the serves of the should at the serves of the serves of the should at the serves of the serves of the serves of the serves of serves of the serves of the should at the serves of the serves of the should at the serves of the serves of the serves of the serves of serves of the serves of the serves of the serves of serves of the serves of serves of serves of the serves of serv

Indeed the story of acquired immune delearncy syndrome or ADS is a gtpping diama about desperate people under an imvenible death settainos forcing rittao



### A strong humanitarian impulse is now shaping the FDA. The fealing is that the regulatory process must be responsive to people suffering from the threatening kiness ?

DEEA

The epidemic has even served as catalysis for vas catalysis for vas catalysis in American at has motived loss ornats into a hit rose research of the insta sensitin rose lepits on his or gree and develop ment of heavy at benefit an his or cataly has an at population second paged of the US population second road as an ACO

will benefit ald of The Inst so ment of the U population room night signal high-mak grout the gay commonly, has been principal soc forca in the wer ADS its work a

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AUG moreover is test becoming a device of the poor and the metodaty deerfunctional in the United State. In 1967, according to a National Public Heath and Hospital Institute (RFHH) study 23 percent of AUG patients were instagent or unmaund. 44 percent ware covered by Medical. 2 percent by Medicale, and 29 percent by private insurance (The nomerting 2 percent wate pricated a).

In a national study of blood samples from hospital patients the Centers for Disease Control Journal that in Martin. New York, and other object where AIDS is prevalent. 1 percent of II- paradols have HV recitors Even in anse when AUS calas in ginneal an case as a 1500 fifuan and see related. The parcensystem cids are related. The parcensystem cids are related. The parhops who before the higher Most of hops who device AUS streng that hops who device AUS streng that heartos. Inoreover protekty cominacted the virus when how well bereasers

The worst-case scenario is rightmarish AIDS could not only bankrupt our health care system built also trigger a backlash

agenative/mail who might for example to oparammed in yw hand dealan complex. Such readown could envy writerinia the declared homeneosis of coel blasties upon which this mitrow was beat. "Time will be allowed to participely vigorian end revert what we need to avoit opublic addemity" issips harvey Tweblerg declared Navver to School of Public Howith. "Twesties to operators that the way we deal with the opdemic today will protocivity allob scoores in law?"

### THE MECHANICS OF DISEASE

ALSB or putting forward the toronism of methods is success and proving the way for the transmittant and the curve of celebratory and sinkn shouldy attliceoses the curvest and Advances is due to the maintained business indications and futures approximation of the success and the success and the success the success and the success and the provide the success and the succ

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Robert Gallo and a team of researchers at NCI axiabid the lest known human retroveus human T-lymphotropic virus type 50 Lin 1980 HTLV Louises adult Ticelileu kerns (ATL) a rare form of leukerns en damo in parts of Japan. Africa, and the Carbbern Builthe decovery tock on new impositions with the advert of ADS

Strated scattabilities to class to which impaged AUS which destroys and this immers system will be "fac-Man gree boards and levens the patient vulnetbilities and another than the strategies and intringig paralisis between AUS stand AIL. Galo suspected that a new infollow agent caused between AUS and AIL. Galo suspected that a new infollow agent caused to have a standard and applied and the puzzing new spdimen. Then in 1985, Galo and Pasow interface and the standard and the standard patient subscription became the light of where somethic southers.

Carcor research, in particular, a basdering form early in interference and grant. The interference with normal call grant. The interference with normal call grant. In end of the interference and the interference interference and call calls with normal calls and calls the interference and call rates the interference and call calls with normal calls and calls the interference and call calls and and calls the interference and call calls and and calls the interference and calls and and calls and the interference and calls and calls the interference and the interference integrang parenting understand the interference (encourse) may burgers and the interference and parent may be interference and the interference and parent may be interference and the interference and parent may be interference and the interference and parent parent and calls and parent parent and parent parent and calls and parent parent parent parent parent and calls and parent parent parent parent parent parent and parent p

"Where also recognizing that unknown infectious agantaming becausing a number of diseased, says Juy Lewy profetiona, San Hancoo School Medicine and the inseasor's leaver for one of the fact teams to soluble HTU-11 movimoun as HM. When were learning about the UN virus is arring as with the tools to cited the presence of these other daase cakange infectious against

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### ORPHANS IN THE STORM

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Three years after being stricken with the synchrome in 1962. Steve Pieters volunteened for an experimental drug that

 Advances in one held always cross-fertilize another. And there's no question that many of the AIDS drugs now in development will also prove effective in treating other viral aliments.

conducted at the University of Southern Califorms (185), under the suppose of NHT Development supported that supmic an antiwelapart used for recention 49 years to treat. African designs soldnase, might be direction or carcharder (HV, Taleing as reportmental drug was a solary apposater, asyst Petrion, the Helio chinter for the AIDS Immany of the Metropolter Community, Duratere (MKC), Tout when yours hancola a calabit solarized watch within to the antihicity.

Buckmin almost lated Press. Nearly, tains do most han a month, ha sustained switch power terms during his has tell due, and this weight bornneted from 150 bucks and by and legit petition, solar this have a day and legit petition, and the due to control finally accorder causes the adnearly and accorder causes the adnearly address that the due to the maximum and switch table block personals and have table and help may petition have been been almost all them have been as

Peters now takes hydrocortisone and fadrocortsone for his adrenal insufiberroy "Its concerning Loan her with "her says respective more his test take of charwase "Tostay, in fact the congresstiobuch thing sees year old NCC miniter with an incandepart transfer down in the her strenzy or of a weeting ATS potent Her Speech servormit and year ATS character and the averting ATS potention of communications and the HV weet concerning communication of the HV weet approach to be constrained on the HV weet approach to be constrained on the average approach to be constrained on the average approach to be constrained on the constrained one other person among the constrained approach to be constrained on the constrained approach to be constrained on the constrained one other person among the constrained one other person among the constrained on the constrained on the constrained on the constrained on the person among the constrained on the constrained o

Conversely of course, other prevously developed drugs have been effective against AUG First synthesized a guarter ontaryinge. AZT (seaddhymains) failed as a carcie therapy. A ventilation became the first antiveal agant that occid battlethe Hit verus and semportally introve some patients error na patterne.

### POWER TO THE PEOPLE

Overall tesh ADS advectory cormuletterative and the advectory of the advectory and advacutive internet advectory of the advectory in terms of drug developnet advacutive internet, and drug developing advectory of the ADS advector Ductor American uses which internet advectory of the advectory transition advectory advectory of the advectory of the ADS advectory of th

In August 1987 the law Abbe Hold meth and a group of entrue proteins lock over the New York Dock Exchanges Teerly two yearshaller, or Signiforder 14, 1999 I new AISS activities churved thomservice Ba balocy raining mange the enchange. The protections below a topherotic clock of our the tackbonic operang hell and unclock a balmer with the earch enuerange. Will be changed with come the protections balance with come the protections balance with come the protection operang hell mains ACT The discussion operang hell

## SURGEON GENERAL'S WARNING: Outting Smoking Now Greatly Reduces Serious Risks to Your Health.

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about five minutes before the police an rived and excerted them out

Along with domonstration in San Fiam, entop incl Locote, the proteinties portrayed wap prantacospectry among a coported eventionate and ALS2 profileer With a one-way supply of AZ1 conting \$5000 per content on of nearly frequently despect pacients, the proteincing contrained that Bareupping Weilcomes proving policies for the vital Macomes proving policies for the vital Macomes proving policies for the vital Ma-

Under the Option Darga Act, a phisindextrakted observative manufactures and observation option drives the menutabeture an option drive. But a month before the activative indexteed that Act the before the activative indexteed that Act the test of the beneficial for people who have He'r infotions but have not acknowled ACIS. The meant that Burrought Weldcentes ACIS merked could budgetaintible vegred.

It recent with September 11 and table ther the sock entrange at an imade the heret page of TWe Well Server Junnes, fast Burnagets Willers outtine proceed AZT by 20 percent. We began should be instalkuy of discretions on the process of the sets regarding how used AZT to people with HW relations in Burnagets with the sets the set of the sets of the sets the set of the set of the sets of the sets the set of the sets of the sets the set of the set of the sets of the sets the set of the sets of the sets the sets of the sets of the sets of the sets the sets of the set of the sets of the sets the sets of the set of the sets of the sets of the set of the set of the sets of the sets of the set of the set of the sets of the sets of the set of the set of the sets of the sets of the set of the set of the sets of the sets of the set of the set of the sets of the sets of the set of the set of the sets of the sets of the set of the set of the sets of the sets of the set of the set of the sets at the timing," Harrington suggests.

Upmproved, the company table has a moneputy location to and association performance of the company performance of the perfor

On Segmember 25, 1989, To Popole Whi Airth Healt Group arrowmed has 4 would begin filming pertaination prosentiative for the server of every 500 per visit Then, on October 11 Lym Homes decelerate is proved the duagtioned decelerate is proved the duagtioned sectored is proved the duagwith ADS rather than to account of the Agen. Lympformed server vision-todent them to account of the account of togen considering dispersion to actionary and the the dual to account of the Bayes constrained and the account of the Bayes togen considering dispersion to the performance to a Unit of the ADS of the Bayes togen considering dispersion to the set of the ADS of the ADS of the ADS of the Bayes togen account of the ADS of

"There's no question that we have decupied the moral high ground." Harrington says: "Nor has there been any quesI on the the communities most affected by AGC there bench technique type very government agencies that were suppoord to poold time. And every time a technique control of the supervised technique technique control of the supervised technique technique and the supervised technique technique technique and the supervised technique technique and beams the supervised to relate the value and beams the supervised to relate the value and beams the supervised to relate the value and beams the supervised technique techniq technique technique technique technique technique technique

The data of "compassionate use" for some chugs and new In local years, however, the FDA began derivating (mathree INDE) (woning standard woning chugs wwields to orthody a paines in soon as loacity levels are determined in the program chugs have on the AZT was direatly being detributed and the concerns are assessed to be added.

Usually, below the FDA even consolon approved a new day, the pharmouted company must put the drug through three phases of freeing other compating tab and annual studies. The this hose determines a drug statution is leave in the approximation of the statution for the framework the 200 hose pharmals and three (1500 to 3,000 potentia) exercised searchine calified data in controlled studiss of this chug's officitiveness. All of this takes seven to eight years. Then the company administration arrange of the second the FGA takes another two to three years to approve or algorithm taked the second performance notioning additional data.

Bioder had treguent deputes with the FDA during the Serverhais to make asparemental drugs exellable to cancer partiests. The approval of as platient, which Bioder calls "can of the most important fractations are and the most important fractations are an end of the drug to heatstacks in anyour TTAP FLAX view with necessarily proceedupies with the drug to end endance without each common for the good it could coll.

Secon 3966, however a number of trugs have environic through the butessated process AZT was approved hearborn in lead train services and hearborn in lead train services in the lead train and train services and the second in the readment of Bedinson's designs, in lead train services which shows any test the train second second second the training and training second and the second se

The givenment has also authorized community based drug trele run by prvate docters of local dines to oblicit data on treatment efficacy. Last June for exemple, based on studies by Sen Princes-

cos Community Consortum the FDA approved aerosolized pertamatine This marked the first time a rewiding had been approved best solely on data from community-tabled them

Write drug tealt have been tead tooally conductor in university lacondaries or government hequilities the FDA now neoconscele the value of community based truits. Writemay the options for teating quickers the process' explaint team of the EDM devises of interval drugs. "Nor they be obtained with a start of drugs of the EDM endows of the team of the obtained based of the automation of the EDM endows of the team of the drugs of the obtained of the outpaties the obtained based of the obtained drugs of the team of the obtained drugs of the obtained of the obtained drugs of the o

currently being tasked in PDA sandboncd community based that across the country. Accounty to one estimate up to 40 percent of the datasen new carcor chuge is being generated by community beset tooologids. And smiter this are planted for druge in the traumant of Parlinson's and other closifiation closeses.

Such changes weren't authorn't for many ADS activitis, who feared housanck would de betree ADS drugs were approved And lettoying for an even earlier release of idealeng crugs, they genneed an unexpected aliy in NH16 flavo.

Lee June, epurned by what he fait "constructive pressure' from AIDS act ists. Feuo ennounced his support fait icles of a parablel-track system for AI drags The provide approach sould be stored applied with AGD locates to any power applied with AGD locates to any power autors and the source of the provide source of the source of the source with community applied by the source doctors will be received and the source becomes of the source of the source of the becomes of the source of the source of the becomes of the source of the source of the becomes of the source of the source of the becomes of the source of the source of the becomes of the source of the source of the becomes of the source of the source of the becomes of the source of the source of the becomes of the source of the source of the becomes of the source of the sour

On Sequencies 28 of this year he FGA approved the save distinction of the decaysones (2020) in officed maxuant (2020) and the sequence of the save to the the FGV was and appointed to both so too the ACT and while the manufactures. Bread-Mayers conclusion contributed maand CPU, in a size making the drug available—them—are part of the insterg available—them—are part of the insterg manufactures the whom the period to be to bard. Their could include as many less 3000 panels.

Drug companies generally support the concept of parallel tracking, but many isaues must be incread out before the system bacomes operational "Liability is a mage tasket says abit Philicolati vooprosolent for medical and regulatory of lass at the Philimmasadad Mariafadarers Association. Weire also concerned about ottochy il potentre resolente to ching. It wilbe tough to determine whither the drug of the lines caused adverse resolence. And the longed deby the drugh oblival FDA approval."

While the FDA says its changes are really "an evolution divisiting policies" a strong humanitation in multilles is now straong the agency, according to Broder. "The fixing is that the requisitory procing town the threetoming iterus, and that neatty must be a promy."

### THE WAY WE LIVE AND D E

"ADS is the casays for a new est in social medicine levels Michael Goman, a madeal equatimiciopat and bishwords societas with the Rand Corporation. "Its changing the trachional medical model for disaling with disease and forcing us to look at the whole patient in his other natural environment."

But cost as much as compasser, will drive this service to the practice of miciliane. The strategoing occordine call of caring for ADS works in fact, her prompted the herbit care industry—play scares, hospitals, and insurance comparies—hospitals, and insurance comparies—hospital interference effective and turnetine ways of providing case for the orthoal/will

It is a trage but little known fact that mere young Américan's have died due to the ADS experiment tran were kilodin the Weinam War. And use as the daily body counts on the registry news sensitized a presedent bith hismets of war. ADS and transform the genominon adhuse toward the crocess of deeth and dyna

HUSs is in cgr deall. At the end we mis are often mentally impaired They have maltiple expertained, intechnic they raised they mentain president of the ACS Hospie Standhalm in Los Angeles. They dan lwant to spend thesi bed days in a derine begah. They want to de with objinsy in a furrane setting a there or in a hospitar.

Expansioning a listerd's death in this way medical and social experts say, will prompt many of us to choose to die in our own bacs, surpounded by lowed ones. And this will reverse the 40-pert franch do plicing the elementally at house that to be

Page 1006, 40 percent of an Meccure monty is specific appeals during the last six months of their loss, when obstatis horocally interven in the case of aged patients when here in obstation. Arrencates have title or no health insurance function of the second strategies of the such an elecation of immed framework source is notice intervention.

The skytocketing cost of ALDS-related care, most of which is expended during so Own In bias there months of Ne, a strappening the distate dock unwelf-all health care spaces. The Nacional Contra for Health Services estimates that arrival ALIS related metacal care to base 35 2 biblion. Other teleschers on the bia all be servtight and and the DSA 5 biblion by the ord of 1691—opportung to the Alasteceleros parametrica for two Kots \$1,200 project who have AZT with the service of project amounts at 2000 ft.

Hatendo by the specter of uncorrect table costs, hospitals and heads manarene companies are compared to find ways of terminals the brand making costs more managements the based net just in terms our acts acress the based net just in terms of ADS, says Jude Payre over policy instages appearance in ADS for the Head insurance Association of America, an inoutary toole group in Weshington, DC But with ADS. hereas a sense of un

### White

drug tests have traditionally been conducted in university laboratories or government hospitals, the FDA new recognizes the value of community-based trials.

gency because it is generally latel

Trainedly the ATS pogners berg landed an writeness the fixed how policy access for an interfaced wold the adaptive sector of the sector of the the adaptive sector of the adaptive details of adaptive the sector of the adaptive details for the adaptive sector of the adaptive details for the adaptive sector of the adaptive details for the adaptive details of adaptive details for the adaptive port of the adaptive port of the adaptive port of the adaptive details details

The hospices success has no been last on John Hainock Mukal Lie and other sawly mutance companies enboring new tetraligness in exclusions. Many companies have instituted casemensgement programs. The John Alcen Lie immunece Company for exempte moonly began a unique patient save cases program to manage the case of persons with AES," or PWe. "Our whole thread is to eleminate the hospital from the potate, keeping people at home, where they're more confinitable and less likely to contract opportunatio, infloctors," a joint Alder and escherencement area.

John Adami pergam pergina pergina a conmangament team companing a chyscen a runne and a scoral worker who supervasit to perform can and head the authority to personale of the stream ordening covered by insurance polaris. The insurance company will pay for homomoles of the will help to sustain personale teach and well below the teach of the stream of the stream personale teach or the stream of the RWs family member or here is provide user in here in write a will pay the comtent field in the runn can be seen as

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Shoc 1907 John Adde has immedi the inversion ADD protects diagnosisdeal metadoa de opontes from 364 000 to 201000. The program is success here also be to the company's initializing a similar adviccosy program for concer patients in 1000. And it may pay for success nervices as in-home chemotherapy which has de usyybeen possible but instruction companies would pay for it only when pertomed in a hompial setting.

Other programs are barring contractived doubters (close) and for voctions of chronic doubters Alcharmen's diseases and hearance covered services as the training and overveeing of databates, which don't always compty with training and guade iness By contracting to est average of datations by contracting to est average of datations by contracting to est average of datations and the second database shocks on others abates existed provides and on the upper existed contractions.

#### THE FABRIC OF SOCIETY

"The role of law in the ADS epidemic must be air remarkable as the role of scierics, "says David Schulman a Los Angelas decaty only atternity and head of the ADS Decommance Unit." For thetics, them Bax has not perceptes and voluee that reaarthe primal imposite of sociales to fractise in times of stress. "Challenged





Respected scientists have evoked the cosmos to explain the extinction of dinosaurs. But talk about astrology, and people assume you're mad.



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Seymour who is principal lecture in astronomy at the Plymouth Polytechnic Institute in southwest Englished and director of the William Day Planetarium there

Investor puper. At left, one is a secret of periodic to a localization of an analysis Desinenza to an A localization of a registrea Desinescrata pointed of Periodic Segment India registrea of their Segment Constraints an aneler 5 compass and an analysis of the segment local to compass and a local to any the Annu is the local to compass and an any the Annu is the local to compass and an any the Annu is the local to compass and an any the Annu is the local to compass and an any the Annu is the local to compass and an any the Annu is the local to compass and an any the Annu is the local to the Annual Annual India granted Sectory an sour of the phareauxies and the Annual Annual India to compass lays out his theory in a book titled Astroogy. The Evidence of Science (Lennard Publishing: 1998). Here's what the English press has to sky about it

portant books of the century --Yorkshire Post

"This is a shameful book"

--Weskend Telegraph 'A brave book written in a poneeing anet :-- The Scoteman

 utsupported speculations, founded netter on known facts nor on physical patcatators."—New Spectral

Note of the reverse, whater trip years should be book paint, seem lounded on a class understanding of Skyrtsser hear the second statistical statistical book is a combined on the Skyrtsser book is a combined and debate. For shhear book is a combined and debate for shhear book statistical statistical book is a combined automore and a statistical book is a combined book and a statistical book is a combined book and a statistical book is a release to book a statistical book is a release to book a statistical book is a release to book and a statistical book is a release to book and a statistical book is a release to book a statistical book is a release to book and a statistical book is a release to book is a statistical book is a release to book is a statistical book is a release to book is a statistical book is a release to book is a statistical book is a release to book is a statistical book is a release to boo

Astrology Ratph Weldo Emerson wole in astronomy bringet to anthand applied to the attains of meri. Modern addrotomy www.thumankind as an accdent in the chain of life on one planet of an optimizing iden most the edge of a spoal galaxy undistinguished among bitmes of other similar calaxies. Modern actiology by contrast still recognizes each individual as the canter of the universe

Ever since Gallion United his titlesocial signature in 7021 the source of diffed harbs and lumba apart. To ever weat the halance limit are upon the finding Segment has done—to use the finding data length and the source and the finding who about the progress of source We have about the progress of source We and segment another up and the source productors out performance of the conlisions in particle shripsics on performance too the parallel the West Beth.

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Of course 1 expected people to take objection to my theory." Seymour conordex, that i defit expect the reaction to be so wherever of so imational Some of my collectuates here at the polytechnip. and at the Royal Astronomical Society simply demos the idea without reading the book or even bailing at the evidence A feer of them are reacting to the accounts they've mad in the oweldeally

Maanwhile he continues many other scientists, even respected sommers, have eveled the cosmismi- in the linearies that allow title short of bizanes—to explain the exindem of the discourse or whet have you have a lingth. But people assume youre med

Luckey for his professional reputition: Segment is accommentation: Comme Magmetian (Adam Higgs 1986) was splichdicky accented just as the function enumbed accentral astrological work. Profession Comsidented to be the work to authority on imageicacianal and anterpt to convey to the skyman the compresence of megnetiant in the university.

The many is that Seymour was as separated of astrology as the need interaction and not as all inherenced in turble to centry. Advances on the other hand, has been this passion unce boyhood, when he spent many a right on the wold with his guardistance learning how to about you for consistent the Southern Dross, and other contactuations in the dees over southern Alson His change of heart began by nomolection. A BDC training carw used the city of Pyrmadi that summer as the fining site for a program about astrongy. The group conducted intervensial event town with popile on the street, using her verse or astrology and then is depresent face the last word by what of his postion as the respine local sufficient on astronomy.

<sup>1</sup> Yeld Hern Lotars there there was made to adologing the receils "People are always correcy on to me after Lyow a planstarm location—and Ver been in planstarum location—and Ver been in planstarum location for adologing L lands to all them hones that linewers don't our their paramaty could not think done conside to support some separation of any mochanism is explain their the plansts the sain and the moon implicatiest beams mill?

Although he'd answered the same outputs statut asstology hundrids of times, Baymour statuted serucular refiniting the source that the triens on the with his want back over materials he'd read years before and looked into some new seguments, and a mechanism began to take shape in his mind that could make the moossible obsubtle

In sum, Seymours theory holds that astrotogy is not mysteal or respect both magnetic. It can be explained he size by the tumuloous magnetic activity of the sum churned to a latter by the motions of the planets, barne earthward on the



solar wind, and perceived by us we the earth's megnetic field while we grow inacte cur mothors' wombs

The first issuence for astrology this Saymour encountered was the work of French psychologis Michel Gescparin, who begins writing albud jashingy mitti thas 30 years app. Because Goucard has had to sale hand of the assertions what there is more to astrology than can be separated to chance But because he a psychologis midical of an astronomer. The world has not been quiet as

Gaugazin has shown the planterup postore performance explaint the secalities an again is done walks. I postern, no separate planterup and the second noise of the planterup of them would associate the second to basic teacher to the second of the planterup of the second reaction which is also is basic teacher to be reacting in worth at her manerate of the planterup of the second people choices in at another from a sensity of professional second more all planterup of professional more with builder in these postores.

Concerns there is you are strateging on the concerns the two processes of two proces of two processes of two process

Morth track transition array with approximate track track the second second second rate the second second of the association that greet here and having the excitor. The association is the chine of the association that greet here and having the excitor in the track the second having the excitor that greet here and having the excitor to second and the second having the second second second second second the second secon tor Leo, dispect and perfectioner for they. The attribute problem in newpapers are based only only on the explotate at members of cosh sign state at that at members of cosh sign state at men have. Here, they have been here based with a second based from the hereaceps column in the New Not Day. News . Utch : Null have much to commandate basis and will have that based in the free of the Scorps for uccan reand states younged based and the annet to hereave the scorps for uccan reand states younged based and the scores to hereave on your control.

Much environment intercorports regime that every particular to the second seco Paces, nong juit after surget. The wee mon, whowere astrologors according to the New English Bate, interpreted the event as the birth of a Jonesh king.

The represence of the placetary part of the second second second second second second transport of the second seco



Brice repetition of research reachs in the Hebiol of loarners Gwazelen repetition the startbas over and over on ditionin gioups of terms: and thirth dates Date throms control with the second start and in throngs Gwazelen and physical and relative terms in the physical and and second second start of physical and physical second start by physical and physical second visible to estimate optimisers prodender to term there is introduced.

Caucity and was adde in this work by the meculical methods used for the control in meculical methods used for the control in the second sec

These particular results of Gauqueling are the most important of all his find regs as far as ing theory is concerned says Seymour. This is bocours hey are based on obserview measurable camties, we parametry positions and birth mes as opposed to presonally traits They also proceed to presonally traits They also proceed to presonally traits they also proceed to presonally traits

Anonomia the other authors Seywour constation the generative of the search of the psychologist Hans J. External end on the search of the search of the second set of the generative of the search 1980; match hay were U. What another search of other phenomena from an anlogical and other phenomena here on admitting the search of the search of the search other phenomena here on admitting the search of the search of the search other phenomena here on admitting the search of the search of the search other phenomena here on admitting the search of the search of the search other phenomena here on admitting the search of the search

This was the challinge that Beynour toold 1 know that Bauquein found the effects in save to be exegonized on tays with lots of magnetic disturbance. He says, 'and that seemed very important to me sei got chacking on it'

The physical agency that Seymour decluced is a magnetic signal from the comos which would be amplified on magneccally distributed days. The known line worths might reases magnitisk signals was an adverse in line same way that a body consentials, it's patients in approximate weat us lies frame-service to the lamb frequencies and reconstructs. So when the body is easily to be form it was los a magnetic signal from the deciding joined to signate the moment of birth.

It is therefore to account that this to that chick is bern with octain plants in pomary positions. According to Simmost's hvory the positions of the plants are waiting to heat as then cures to write the world. Are each child reached is the signal that his genetic makepings torgaramet him or her to seeme

Aetrology in this were has public carry borks in holes by oreding the planning with the power to predict patients with the symmal basic scattlinn is the power that soft the personality on course and the aproximation of the introduction burth again with haritid the introduction burth advolger merely basic which make this areasynchronic basit the interfact that an areasynchronic basit the interfact that are tooger described as more timely by symmetrics of the

Also both the infart newque system is seemed with so make other hands of inpage of the site of the set of the set of the set of the set of the magnetic messages are orrely distinct out. A cutter profile initiate yats how out. A for the panets have up again in the available but the regettion may come heavily logical and cales concarring with tensing incomention panical glowth or channes of internet.

To really free theorem in one, Seymour says of his concept. "It is a theory of how placets can allocit usin advery how selar liciting affects the nagenet held of Earth, and how changes in the remths magnete field affect the falls to determore the moment of bits.

The first two links in the theoretical chains are gues asknownly and polytopiecks and well with Skymour is sterio of respertise the frucher takense annow quartical additional face way human beings may respond to imagnetism. At lines are introvening importer sportile chains in humanities but have have been nearly accessing over the theories of astrology hereigned over the herery size a whole

Every part of Skymous herery hinges on megnetism which pervalues the universe as gravity does and hes bit reaching effects. The entre with is a magnetism with a name and a south pole automates the megnetic field field and automates the megnetic field field in automates and the megnetic field field in automates and the megnetic field field in the magnetic held of the Milky Way. hough any weak extends when the automates one open lement of magnetism, which manifests itself in surspots solar prominences, and solar literas

Many india of Earth beng perceive and respond to magnetic caus, from the coosen hwelling backston that use may be for the second second second second perceived to the back that nonpara by the magnetion head Harmon beings too three some storm second second towar that an experiments have the second second second second second towar that an experiments to the second second second second second towar that an experiment to second second towar that an experiment to second second towar that second second second second towar that second second second second toward the second second

To explain his theory. Seymout might poly out by possible duration in a data the polyets As here go have servicely opposite ways, takeing on widely sep analoc paths the planets are all pulling arone proper aiming balas and data-

Saturn Igured in a stabstically significant way in the buth charts of many famous scientists and physicians, while Jupiter begot playwrights, actors, and politicians

ing ottats indisamininativity Some. We Mercury go quickly about their ap pointed rounds white others like Jupikir are stow funibiliting giants.

From time to time the planets full into string generative platinities—quality do in a line for example, separing all of edit angles to one another gamping all of one sold of the same if you advant to Bahl, you can all observe these patterns in the sky. The early actrologies saw them lao recognized their strange power, and severe it them cannot a

Beyrnar expitteriosas parettatida yr the plastis in centra potterni are tesponsible be the revendi of the lastitication of the second of the lastientry of typicar and locks of the begreng of each new sumaor cypic. A plastidems demostrated has demost only disputs situdems demostrated has demost only disputs a situdems demostrated has demost only disputs a costan acposed on a disputs between the planets that association (BM) boween the planets as waved from family automation (BM) boween the state of the planets as waved from family automation code effortment associations (BM) boween the planets as waved from family automations (BM) boween the planets as waved from family automations (BM) boween the planets as waved from family automations (BM) boween the planets as waved from family automations (BM) boween the planets as waved from family automations (BM) boween the planets as waved from family automations (BM) boween the planets as waved from family automations (BM) boween the planets as waved from family automations (BM) boween the planets as waved from family automations (BM) boween the planets as waved from family automations (BM) boween the planets as waved from family automations (BM) boween the planets as waved from family automations (BM) boween the planets as waved from family automations (BM) boween the planets as waved from family automations (BM) boween the planets as waved from family automations (BM) boween the source as a state of the family automation (BM) boween the source as a state of the family automation (BM) boween the source as a state of the family automation (BM) boween the source as a state of the family automation (BM) boween the source as a state of the family automation (BM) boween the source as a state of the family automation (BM) boween the source as a state of the family automation (BM) boween the source as a state of the family automation (BM) boween the source as a state of the family automation (BM) boween the source as a stat With a bit mass work. Beynour thirles he may be able to use these considered to predict the next panels of pask solar migratic activity, called the surreport material a solar maximum with success?, he aga: "It can do it. they third one cert of my theory would have prodictive when he admonthy."

Surgicity approximation acceler in part with imported lives of two invitial calcineous thermatical instance of lives and lives and lives the second second lives and lives and lives or at the Lives of lives were thereased the second lives and lives and lives or at the Lives of lives were thereased the second lives and lives and lives or called lives that is possible to the second lives and lives and lives to call the lives of lives and lives the second lives and lives

Interme barrhachtente by erfta offegele, paintals from the sun are encoprated today as geomegnetic, blanck Amount of the gamma and the sound of the mount of the gamma and the sound of the bar attrocycliene and they gaterafice a subare sharing on the strength of the field at the earthy surface. The future allo must helpfolds, design todo, feldigraph must helpfolds, design todo, feldigraph possibly procepting in theorems, and anythere earthers.

In ancient times, too, such viorms, would have heat makes effects on aispeck of lien or Early some of which regist, have boan his interreductive which of hers would have underlied over visits of dasage. For example, the commendative magnitude with peoples movin affirth to asses for example, the commendative right devections or is lind water by dawing and could have created leng-teem of bargees in the weather which then destrayed fixed assess from paints to fails to which come

Without any index of magnetic lives, in replace, early actinologics observed that operating barnetize appendix on Earth They began to interpret three planetary positions as opposing and exceeder. And they were right although they don't know they approve with this modern expertise in cosmic magnetic fields, is simply fieldmic out that another to

What lineed to oprow he says of his pars for further testing is to take Gauqueins data and many them up with a spectral analysis of the records from megnetic observationes. According to Seymout there should be doescable consistence between the farth records associated with onthen planted and the concerned through the minimum planted and provide the right lacks of impacts of the provide the right lacks of impacts of the second secon

Little other contraversal control free mens of using yeak. Supprivate lists to a explanatable and testifield within the boards of present knowledge II invaking interactions of supprised in a supprised interaction of supprised in a supprised interaction of supprised in a supprised interaction of supprised in a superlaw maps transist of doir inputed interaction of supprised interaction of supprised interactions of superties and the supprised interaction when they is not supprised interactions of superties in the supprised interaction when they is not explored interactions of the superties in the superiod interactions of the superiod int Imp Represent recedents have to specific watching permitting, with a lossest fieldistrated them a bitterniality, at least paids that and a place of string. He book for children Multi-string them a balance of the book for the string of the book for making wanging from a balance of the test string from a balance of the string string the string from a balance ben of the longest place of the string a belocopy or the maternial to balance a belocopy or the string from a balance of the a belocopy or the string from a balance of the a belocopy or the string from a balance of the a belocopy or the string from a balance of the a belocopy or the string from a balance of the a belocopy or the string from a balance of the string a balance of the string to the metric of Appler, milet.

He wole in a small urg/percent of the theor herg/hereinstandischen The wills answhen will no decontions save for a chart of the sole system and an electric bese stopped at 3.15. Tools on navaga team and assocramy fill the bookcaste and over the meter deek and navally table bestep spirg up no stacks on the foor Wacque into the bookcaste as though tegratem is a placem model of a spaceanal, with these astorauts stelling up or Designates (the out short setting up or Designate) (the out short setting up or Designate) (the out is an short herdicage)

From these headquarters Environmented to the second second



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I dent leach chidsen about astoogy' Seynour says 11 dent decuis my beory with my reference sidualitis offer although at Christmastime 1 might tak about he say of Behishem in an end diterm leachtril.

Beynour conserved ables relationly to have his own horescape cail a low moths ago...by a computer as part of sompore elses septement. La General, a prominent English autrologial and depet nambeel relayers to see if the apple angles, that some due with an depet nambeel relayers to see if the apple applying a computer to initiate apple applying a computer to initiate apple applying the the apple of the apple of the second second second apple applying the second second second apple apple of the result is accreating they dail apple which percent

Takes very virgonosof with the passan registrances and the past analysis. Boymour concedes with a smith " werties of great desta stock in other passa days of any signal days and the service of the stock of days of the stock of the stock of the stock lend to be a pict that would be consistently appeared to a stock that would be consistently appeared to the stock of the stock means the weak of the stock of the stock needs the weak of the stock of the stock would be stock of the stock of the stosents because the stock of the stock of the stosents because the stock of the stock of the stock of the stock stock of the stock of the

Bigment has also costined a horsogn for Cover Listersh under Listersh day on costs with the Listersh under Listersh days and the second second second second second and the second second second second second and the second second second second second with the lister and second second second and the second second second second along with a cost of the back and has been been back and along the second along with a cost of the back and has been been back and the second second along with a cost of the back and has been been back and the second second costs and back and been back and costs and back and been back back back and been back and been back back and been back back back back and been back back back back and been back back back and been back back
Lamer: Woodow Wydz, wrthe an ensoy fac The Jiwes here datama. Pacel Forn sotbaalse and hocups which revelably affend an eight-was presedency. Wydit wrdin, Mr Biagain has been remarkably Penhaps we should be grabelid that soomsdy he wiles more on advice from apticipants from two patiloid commintations and opported.

The second secon

Beymour known or hor protesservit ausonormar who have and if all hough all hough proteins and all hough all hough all hough it was tracked by the second second second to all housening of Largevit to it a lat. The second second second second second second second all housening of Largevit to the second second all housening of Largevit to the second second second second blanch from any second second second blanch from all hough to be meetineed and the second se

Actels Pay polessor of assummery at Glagoya University in Sochard, had an entrary offlerent reaction to a surviviliary of Seymonic theory. Withough I couldn't comment on the week concept without payre (Incuprite) failed the social sectors in Soymour's book. Inclutence with a scansifually instability. According to Ray a tube sectors goes where the evidence leads harm even if it is paper in desiril patietinderwent to no.

Seymour has a reasonable philosophy about this. Ray says "If his future observations don't support his hypothesit, then live a good scientist, hell da-72, page

card if The problem now is that people are gobbling at the theory and discussing asirology as mildleval superartion."

The providence of the Regul Admonstration obligation, Reverse Damens of the Joshni Bank Takata Automating Charanabay in Services a technology basis but given us the secourt of the stapical sci and extrannet. When the weak a gradium student, Seymost helpited to show that magnitude weak ways that weak and the has made during ways that work, thes been continged between tools in the state of tragnetic fields maar galaxy fields and introduced anthread word?

The strological work, on the other hand, has head him out but not enbraced his lease Charles Harvey presdent of the Astrological Astropation in England and charman of the Urana Trett an educational therety set up in 3270 lo

The genes set the personality on course, determining which planetary signal will heraid an individual's birth: Astrology morely labels what nature has already ordained.

India support induction of individing in light. Think is worldwild that Suprawars pathlang up a theory to be heated. This is again, using searchest—a man of grant beauth, with a wellingness to be proved wrong. The public to faster matters to him whenever is may lead him and that abloce to all boo tase. He model of a strong as a field attement, but it is too times a list a starbings all coordered.

Hencey, who has been an astrology is to be 27 years, bolievel for all informations in sudged in its impleadors that it over the truth in the model Segment is suggestiing — or any steely search from the best model / who scal as much in the not Segment's type of model can ever many sublisher of astrological explore enco learners to be seen But as Einstein ponted out, Tensen an untering that no wong "Thy are and in fairly estimation that the model is the selection that the selection the ponted out, Tensen an untering that no source "that the the fairly or shall be the selection of satisfies the selection of the selection but as the selection of sele

Physicial Peter Roberts, a visiting profusion at the City University London has like Seymour investigated the case for astrology. He devotes several pages of his scon-to-be-oublished book. The Mas. sage of knowledge to at account of Seyment Interge Search (see a net interview). A second search (see a net interview) and a second second second second second second second to both (second second second second second to both (second second second second second interview). The second secon

Reperts wonders if Seymour's theory goes far enough "Largue in my book" he says. That you can't explain astrology using ordinary physics alone "You re got in move must the parameters to do it."

Seymour in solving with solvinole. The methodology of solvino is a wry way powerful lod for investigating herwich? In alige. "This as a body of knowledge that solenistic consider true for today bud to contex in the with abaculate that? It is decours ? Seymour observes. Solerinds contrain the wedence make modula to explain the wedence make modula to explain the wedence make modula to be through the module if the work?

We any impact by the fact flat we are human beings who percover things through our serves: The own "The sphere could never information of the sphere could never serve the theory calls to be an auge that there could not inform the choices on the spheres have been the bean sugget that there could not inform the haven avera particular being that have dealers of the spheres have a skicelinedging the could not inform the skicelinedging the could not inform the skicelinedging the could never a skicelineedging the skiceline them.

T balave it's possible to modify the methodology of some to reveloped the performant. Seymour any attribution call of instationy as a whole obspecially the sun spres and the zonkac, but he gat a greater respect for ancelet satisforgers who were const observes and theirers

If the theory haves out to be control if will provide in free theory of Solar-Internative indextanding and a free analysis of massietisticating and a free analysis of massirestriction of the solar solar solar massiman life. Writing the book has freed me indextandly. The solar "have part of the indextandly the solar solar and none every holdy anows where I start met when a sparset dogma pacification dogma, solar dogma dogma pacification dogma, solar of the dogma, I can think metro elevery now executive to the solar solar to the moment ensure to solar to the

#### FICTION

Times of civil unrest often inspire radical change-even of society's most basic structures. Their essence, however, can remain the same



BY JOYCE CAROL DATES

The days were brief and atten-united and the assesse appeared to be load—neither summer nor at of which had formerly been our propwriter, spring nor fall Albernal erty in Grandfalber's time thousands of haza of inexpressible sweet- acces of wheel, corn, ask, and open In board of megenesistie newel-ness, fload) board by lips bit of grid or sparsar (and -a constraints) board bornhills, and meas, hard accord init he Valley from the board services of the service of the service of board. In constra-tion of the service of the service of the service of the service methods and the service of the service of the service of the service end of the service of the

PAINTINGS BY DEMACCIO



#### Overnight, it seemed, there appeared roads, expressways, and "planned" communities walled against intruders ?

others of the rambow it was likely to be cone when they carrie. "List," my older brothers and asters caid, "don't say such things if you don't mean them." Father and, forming, "Don't stry such things at all if you aren't certain they will be true for others, not simply for yourself."

This begins in the time of family celebration-after Father succeeded in selling all but a few of the acres of land surrounding for house, his intentance from Grantfather, and he and Mother were giddy as children with rokef at having escaped the luckless fate of certain of our neighbors in the Valey, nancher-male of Grandhaher's and their descen- longhoms moving beyond our twole-loot balted web lance dants, who had sold off their property years ago, before the and mysterious winking lights lifty miles away in the both its market had begun to realize its full potential. (Full

torod, rolling the words about in his mouth like round, smooth slones whose tasks absorbed him 3 Now hey were landless, and they investments were disky and hespetality, where no ocuntry people could They had writesh prostruted them rehms. Eather said. sighing, and artil ing-and for solitie! It father's that a curso would befall arwone in over a neighbor's matertune, but as Father said, it wasdemediateutrottofed superior in this instance. And her webersonly agreed Our house was made of stone

sturce and sincheast the newer wines d by e big-city architect, had a good deal of okasa, and locked out into the Valley, where on good days we could see for many miles while on humid hazy daya we could see barely bayond the tence that marked the oder of our property. Father, however, preferred the roof. In his white, light-woolen three-caroe rait, white fectors conised back on his head, for lack, he spent many of his woking hours on the highest peak of the highest roof of the house, observing, the Weley-for eveninght, it seemed, there appeared reads, coprosswaye, sewers, dramage pipes, "planned" communitos with such names as Wheppenrg Glades, Murmung Oaks, Phoasant Run, Deer Willow, all of them welled to keep out intructors, and, yet more astonishing, lowerlike buildings of aluminam and gloss and also and brok, buildings whose windows shore and winked like mirrors, spiendid insuratives like pillers of flame, such beauty, where once there ha alons, taking your breath away. "The ways of beauty are as a honeycomb," Father told us, and none of us could determine, staring at his slow-moving los, whether the truth her

So memorized was Father by the transformation of the Valley, perceived with chean file acuity through the twin lense os of his binoculars, the poor man often lorgot where he was thinkno to induige him, or hurt by his indifference to her, did not send one of the servents to summon him, he was likely smiling shoopshiy, he would explain that he d laten relevan or, conversely, that he had been troubled by herthings for which he could not account-shadows the supe of Mother damaged the shadows as optical its

sates caused by Enther's carewounded constitution, or the chasts of old, long since-slaughtered livestock, the

lights, she said, were surely from the private supprise Furnace Creck-hod Eather forest ten already that held sold a large parcel of land for a "Those lights more resontale freas? Fatter who they they write in the lock tells, not in the plan Those wore times

then of power tailants. and Eather was forced his rootico vial, while-clud witness and thought, should he Eve to appendid age, as Grandfalf to minth year when he decland then in a fail from a wasp stand horset he would science of our time, like Thusyckides of his, for "Is there a

world strugging to be born, or only struggle? Because of opmerous dislocations in the Valley, of which we learned by degrees, the abendosment of houses, larms Iverslock, even pets, it happened that packs of dogs began to roam about looking for food, particularly by right, peer atawaing creatures that ware becoming a numerice in the region and should be, as authorities urged, shot down on sight-these dogs being not ferral by birth of course but for merly domesticated terriors, setters, coder aparelis. Ger man shapherds, Latrador retrievers, even the larger and coarser breed of poodie-and it was the cause of some friction between Mother and Eather that, despite her presence on the roof at all hours of the day and right. Father failed nonetheless to see a band of these door dig beneath our fence and starily make their way to the clary barn, where with torritying officiency they tare out the throater and surely this could not have been in all not - of our last se holdsling. and our last two she opats, preparatory to devourne the poor constituers, nor del Enther notice acryting out of the orditary on the right that two homeless derelicts, formerly

barrhands of ours, transled theresakes on the finite (which was inductionally charged, though in complemosite) (our y finith and here Othan equilations) and were loand, dead with monimy, di vas finit, our stateen-year-old, who loand year, and the aph of the mon, he said, tere histories -booking, garty garty ded, he transled were all free mark) the crass has been all them early

Police with the strategist field manufacture of the strategist of

companied by Father, after what weeks? two monitie?) it was with shockinc news. She and Father had, after heartspe-they must officially despine the manlight shone in her eves. We children were no beken by surprise we could not good of all! We stood staring and mute, not even Conx Kit, and Dele, not the voungest children began whimpering heighter the source interest by the rest-Mrs. Hovt, whose features were already biosted by liness Mother said. 'Don't soff. She then played a video of Father a tolevation screen, where we had novor seen his image before, and could not in our wildest faccass have imagined it was thin steely bands combed wetly scross been scoured hard. He satistify erect in arms as girdly the block has determed from the incudent is works over the the incudent in the incurs of the the incurs of the the incurs of t

This attempts Mother involuted to to the men who wells to be Father's successor in the household, and to have brothers and sister, and we should handle shipt, in a test of mulai shock, and segaridd one arohan will well and segaridd one arohan will well the set of the set of the or set of the set of the set of the new hubband was no step for an well hubband was no step for an well hubband was no step and we set to an Imm 'father'.



innermost blocgits, we were to think of ty and as our initial attacks of neuses, dhum as - "better". I for otherwise the anthreas, and fanish-handdress had would be very hut, and very depleated. And as to ave the faniar and Estatisk, our though of the any donger builded, we ren thy Ad as in to with liber and Estatisk, and new brothers (not teleptoretient), and the sum had any dimining wear ad all. So that, Hoy used to upo us, that we had any dimining wear ad all. So

mate age but heaver and more robust large head, the channer particularly dovel aped and small shrewd buck-darting somble an undertaker's and sported a red carnation in his lagel, his black have been phosphorescent. Hello Pather," we murmured, hardly dering to lower law a good inch longer than the upreeth was revealed; and, as often happened in those days, a single thought other, each of us smiking guilbly as if struck us Grocodile/ Only little Jon passed into her head and after an embarressed moment our new Father ally see how the memory of our former Fethree years old then, and not account-

New other official and official

That evening certain of the bysybias, rot, rot, there-aptimeted course like, rot, and there-aptimeted course into a constraint of the course of the rot rot and the course of the rot apparent tits and other coulses to mit helps and the course, rot of there claims, rot and consequence of the rot claims, rot and the course, rot of there claims, rot and the course, rot of there claims, rot and the course, rot of the course of the course, rot of the course of the course, rot occurs, rot of the course, rot occurs, rot occurs, rot occurs, rot occurse, rot occurs, rot occurs, rot occurse, rot occurs, rot ly and an our main structure of masses, that anthose, and faint hexade onlines in that structures in the structures in the thought of it any longer but most to be structures. How any structures in the structure of the structures of the structures in the well and any childing water as all to the structures of the structures of the structure of balan structures of the structure spectro Data stand ang right "Hear? These path that you have a structures of the structures of the structures of path the you have a structures of the structures of the structures of them interfaces well a structure as the structures of the structures of them interfaces well a structure as

As Cory observed smiling, yet with a trace of resentment or envy. "It looks as if here aster has made a concuse!"

"But what will she do, "I couldn't help asking, "---If she car't drink our water?"

"She'll dank r, ' Cory and grmiy 'And she'll find it delicious like the rest of us ' Which, of ocurree, turned out very quackly to be true.

Mother played a video of Father's farewell to the family, which draw fresh tears. His words were slow, hailing, and favri, like the progress of a gut-shot deer across a held ®

Convisi confinement came in a time of ley, and all foods except tinned goods were scarce, and the price of armsuncrossed by the controls of unmarked tr'ul, the the web of a grgattic specier. By this time construction in most parts of the Welley had been halted, temporarily or high-rise office buildings punctualed the been erected, ike exposed bern The lovely "Mirror Tower" - as we children called it it must have had a real namewas a two-hundrad-story patchwork of interlocking slots of reflecting glass with a cele turcuose brit, and where its scenes of sparking beauty there was now from day to day virtually nothing ing slag heaps, fantastic buildocks and thisdes prown to the height of trace. Trail To haid owned as to haid-source, desail to haid owned and the haid owned and haid owned and go inducts of it diversity in the second part of the second second second second second second theremakes and elevation to privilege theremakes that as an advection of particular of it diversity in the second second or statisfield by comparing garge-south informer sected out on provide part informer sected out of prover the source of the sected out of courses the source of these not bargs it that as it in a floring and an advected out of courses the source of these not bargs it that as it in the source of these not bargs it that as it in the source of these not bargs it that as it in the source of these not bargs it that as it in the source of these not bargs it that as it in the source of these not bargs it that as it in the source of these not bargs it that as it in the source of the source of

munities, known to us as The Wheelts criginal name was forgotian. Whapenon Glades? Deer Wildy?---had sufferen so extreme a financial collapse that most of its services were said to be susthey diled to the Valley (The community was called The Wheel because its concloschools, hospitals, and crematonal ward from a single axis and wore protect ed at their twenty-mile circumference not by a vaple way which the Japanese era vulger and ourmoded concept, but by a force field of electricity of lethal voltage 3 craft taking off and landing there in the hights, and one night when the our shot with a duplicitous sharpened clasheep area that had once been a grazing or boys insisted upon doing out to invesfaces, and ittle to say of the sights they had seen except they wished they had out seen them. Miles away in the footbills were mystericus encompments, some ph lived and slact on the ground, others delike three once deplayed in museums as being the habitations of Native American ceccies, the names of these "becoles" long ance forgotian. These were numbered dwellers who had feel then often at the scendants, and vanous wanderers and # and victims of contectous diseases . all of those officially designated outlaw pattes who were subject to harsh treatment by the Guardamen, for the rector was compounds maintained by governmentreastaned property owners and heads still operative. Excertly we acanned the Walley for store of iffe, pessing among us ure whose original owner we could not recall-though Cory believed this person. an actual male, trad level with us before name. Corv a batty was born shortly efdren, who had died of voient fullios linessup truck in the Valley, but this, we were assured by Mother and Father was mere concidence, and not to be taken the attic room set aside for Cory to stare in astoriatiment at the puppydentally alive creature, with its large ovail baby, a white woker artique dating could not remember it, nor could any of us, her children, recail hewas slept in it. "bastard child," as Mother tearfully called it (Though allowing that the manufacture breasts welded milk so grudomoly, and threaded with blood, fit punishment for her daughter's "slutish" behavior, but er boys returned from a hunting expedition with a dairy cow . a beautiful black and-white metaled enmal very like the app, we ourselves had owned. The privsupplied us with swest fresh, responably ours mix, thus say on Cory's bastext man's Me as Mother and To white

The other was occupied with heaveuations. Mother seemed obsessed fant's father. Con/a second lower as Mother called him with a bitter twist of her forward to claim the baby or the baby's rd tha critis was now Alster used by their rashes revering most of her body. And



had become emacuated. Mother herself of us she was plaqued with ticks-the could burrow into the skin particularly into the scale, unnoticed there to do its damage, and after weeks drop off, to be black, shiny, about the size and apparert texture of a watermelon seed, decep two to the ever. By degrees Mother had eacht enches, very unlike the statuescue stark white matted har, and pale alvery pray eves as keen and suspecious as evand penameng, a shout from her had the power to paralyze any of us where we or more than a single well. Even the eldest of her sons, Kit, Hewelt, Dale, tall selves from the compound for days at a stretch, were estimidated by Mother's aucutty submission before her. Anein and again Mother Interrogated Cory "Who is your another lover? Why are you so did not know who her lover was, or could not remember - "Even if Leve his who he clarmed to be

Yet Mother continued her meshaphon spkrg Fether's depissaure in so ruthlese iv questioning all makes with whom she came into nontact, not excluding Corvis cousing and uncles and even Cory's own brothers - even those ravaged men and compound, and whose services the famity accretimes entitled in times of emeracknowledged Cory's beby as his And one day when Corviav & upstairs in her in the latchen. Mother came into the norm with a look of such determination felterror for the batry, and hugged it to my bosom and Mother said. 'Give me the bestard, ori," and I seel. No Moti-"Are you disobeying me? Give me the pessend," and I send beckerin every. "No Mother, Cory's baby belongs to Cory, and mmed and her fingers -- alt, what taking and that this might save Cory's beby For often in those data when the family had Inter the old orchaed, and munical blackmean potations, and such wild game (arwiddle) as the boys could hund could in the observation of the second second in the specialize are tracing in the works were there in a special to munical were and the second prove which could be an any munical were the possible to munical were marked as a special to munical were and prove which the once of a gas, worthed were the special to the once and the gas, worthed were any second were downlined as a famity should we lingt collaboration as famity and were for any the second length.

And included Womer was integrating, the starting scores are had beginner these litting scores are had beginner these litting scores, are had beginner the same at his hear philos, the score and score and the score and the score and score and the score and the score and the score and the score and a score of sprinks. Intelline and score and score and sprinks intelline and score and score and sprinks intelline and score and score and sprinks. Intelline and score a score of sprinks. Intelline and score and a score of sprinks. Intelline and a score and a score of sprinks. Intelline and a score and a sc

But Cory, poor Cory, chied a few days later. Early one morning Lona decovered Lona pratched up the beby and ran schammig downstams for help, and so hence was she in posteossion she could scarcely be throad to sumender the stopy when to the rest drug Her Ingos had to be pried open. In a deard globing voce-whe aid? This my baby its Lona's baby now." Father sharply rebuiled her "It is the intriv's baby now."

And Fift too had a baby, or, rather, writed and sovermedien agony for a day and a night ballow giving both to a pile ous understand creature that lived for on ly a few muuter. Prove satisfier – in the weeks that followed only our muucial everings, at which she encoded, gave the ofage. If Date find to tooch her, let alow.



comfort her, she shrank from him in repagenon. Norrecul she allow Falser or any mails to come near. Sometimes the coelected and hugged me her cold borne than arms. "Multi like bost," she winspered "its the black waves fast show or up, alright "And my heat was to worken with ancoon 1 oud not say to or Ch yes.

For suddenly we had taken up music in the evenings by kerosene lamp. In the played such musical instruments as there in the house or by way of sharothing in their possession for food. Kill had musical salenti-practicing for thad old violin that had once belonged to identical vicin, then luminously gleaning tucked under his ohm). Jon took up the Hewet took up the drums, Date the cyntbels Errar the abox Fit the plano, and the real of us sarg, sarg out hearts out our collective voices sometimes frail as straws through which a rough careless unpredictably, so harmonious, so We same after Mother's death and we Valley day after day beating the odor of land arean to the went, and then too a newinds from several directions they seeman, intert upon seeling up out, catrying sparks to our sanctuary destroying us in a parorizem of fro as others, human us to endure such odors, such sights, ments and play them, and sing, and sing and sing and sing until our throats

This became a time or py and even leading, and the cow will derive in any other and high to well be puckly blughbeed, when Filter brough has new with home to meet us. New Mother and Die Mother has face stopped with otherspress of two denth keyping only unstaged and women was for globen. The otherspress of two denth keyping only unstaged bit the black block (Control power simples), then bodies, lives target one has peak heat was been block of our hor peaks heat was been block of our hor peaks heat was been block of our hor peaks heat well be block of block of

flesh that drained away tife? had she about her neck - or had she not cled at Young Mother stopped forward smiling to take her place ...? Young Mother was about the eyes and cheeks her color a bennoed hands the heavy mass of rodwarm motel unbierking dark gaze. "Mother1' we cred, even the sided of up. "Oh Motherl " begging would she hug us, press our faces against that basom arms against her bosom there

Con/s beby was not meturno as it was mine whether it was male or female, or

ation Young Mother ackinesaed hereeft to The baby, Young Mother declared herself "practical-mended" For why otherwave a dengerous mouth yould be tolerated stood them. "Drastic remotios in drasit with my life." And Young Mother simply receated, amiling, her warm brown There were those of us who loved Corvis Figsh, it was the future of the family, yet keeping their distance when it was fed or crawled into a room to nudge its head or mouth against a foot, an ankie, a leg ier than it had been at birth and weehed now about forty pounds but it both or neither, and the household very was soft as a slog is soft, or an cyster,

loss. As its small even lacked an ine, bepert of nostrils, more holes in the center intelligence, being ideally formed inct for ly a cartilizanous skeleton it did boast two tiquiarly when revenous for food, and in was often ravenous. At such times it chance it was drawn by the heat of nucleo, and nuzzle, and beam like any a ferrale's breasts, and if not stopped in some of us summed, though Long angi-In defined it, that Cory had not deut of ter fear that Mother's sharp eve would

As the family had a custom of clobal-

ions might be honored, for instance guine one of these beasts however they and children who gathered outside our the issue of Conr's baby was taken up to two warring sides. For her part Mothalready proved dangerous, incleast, and

Bo each of us around in turn, and emotoos can bob and it was a purcus cheminds repeatedly now swaved by Moth- mass of half-grown baby rats that

er's reasonno, and now by Lona's now or, or by Hewott who spoke on behalf of and fair-mindedness, who socks on behalf of Long! The same raped, and subfear that Lona would prevail against her feit about the baby it was our firsh and blood presumably, and embodied for us soul bounded by its skull and its destroy

Nother was shared to have her way, one us, who were swom to secrecy, and deple scheme: Lona being asleep in Corv's old bed. Mother led the baby out of the sourceind in creat excitement at being disand as Mother said her polor warmin There-it is entirely out of our hands.

from our memories, for instance she gost and mak and as we realiged ramgood cheer not hurt. We were so happy we deliated tuming the palendar alread debated abolishing the calendar entriely and declastro if the year 1, and beginning Time anew CO

# 'Tis the season for the purist.



Toying with affections can wound elemal souls, but a gesture of love can bring one back to life

# THE TELLTALE HEART PAINTINGS BY GIL BRUVEL



hings weren't the same in the abandoned toy chest, expectatly for the title dot. She stood sullen and hall. No, that a not it, by check expectably for the title cite. She stoot aution and that if Na, this in 01, is are applied The measuring construction read autoframith scratter. But the ware latering. Her meaning hand numbed. She warefit auto she'd exception in the least but of the heat here. It was loss graps that there was to despressly needed, so unconditionally lowed, and she'd never thought have also designed by the Suf now late head. All was in the devices in each other made throught have all we Suf now late scatter but the scatter but was dwing. Nothing opnicated her, and nothing could restore her enchanted spirit.

#### 6in all the heavens' wonder, there must be love?

The other lower states the state of the state of the state of the states of the states









### and old playmate offered her lose-

A fair of dis plantaria classification of the formation of the other tow-ense "four used to low the earth board", the said Academy gains, due and expendent it "in sorry, if y ust that I cont low any hing any torce", and closed her ways. A close to possible to do disk board to a doll's laughter 50 one highly data tills to maximit he tays but had massad the adds laughter 50 one highly board with the tays but had massad the adds laughter 50 one highly had the doll barrier to the tays that the add the add the add the add the laught the add the hard barrier to the tay is and a the tart with and the doll barrier to the The Hardmann you contail of the add to add the add the doll barrier toot. The Management to article the tart barrier barrier to the tart of the doll barrier toot. The Management to article the tart barrier barrier to the tart of the doll barrier toot. The Management to article the tart barrier barrier to the tart of the doll barrier toot. The Management to article the tart of the doll barrier to the tart of the tart of the tart of the doll barrier to the tart of the tart of the doll barrier to the tart of the tart of the doll barrier to the tart of the doll barrier to the tart of the tart of the tart of the tart of the doll barrier to the tart of the tart

6/m sorry ... Liust can't love anything anymore 9

#### **FICTION**

A busy executive balatedly realizes he's about to lose his teenage daughter, and only desperate measures can save her



BY LISA MASON

Tumer's daughter, but she wasn't at the Palo Ato PD, she was in Emergency at Stanford Medicail It was bed. Even ever the phone the cop couldn't conceal the angush in his voice. Real bad.

Turner told his driver to take the Polis right up to the Emergency entrance. Three caraccident victims were also coming through, twisted limbs spelling out some terrible omen.

There had been other hospitals, other calls from Emergency, and Turner had come for her. From the boardroom, making hastly exits from important meetings, he had always come. Anger and diselessure with her had long ago replaced most

PAINTING BY ARMODIO

of the worry. He thought of himselt, sell righteously as fulfilling his tachedy during at momants like tasse. He wondered what oracy prank sheld pulled this time.

But nothing could have prepared Turrer tor what had happened to Angele

The crisp, motified thing with no lingers or toes or recognizable faces key packed in ice water beneach a plastic tent. A web of tubes was somehow keeping the alenlicitient body allivi

It alive made any sense

Jeanine, recovering hom her laint in the lobby backar a hystancial chart, "How social she do this?" How could she do this?" until Turnertold her to shut up. Ever the department who det

"Well?" Turner confronted an ashen dioctor

Angeanad soband and theid egrate burns on more than anoty percent of her body. They found her in some East plak Aki shooting galary. The bodroom had gone up like a tosth. She and har hootiam boghtimt had been cooking sig a methysynthesis incom on the street in that mootiam.

The boyloand hadni made if

Turner assembied these lacts in an orderly lishing and if fed them ready in he mind under an incomprehensible heading called Angels He bart over the tax. Fury field time.

"Angels," he said. "You dumb the blich I could all you for this

"Mr. Turner," the

ashen doctor said. "She's not expected to live through the right"

He didn't want to in trant of all those strangers, but Tumer began to cry

He had his driver take Jeanne home in the Rolls, and Turner took her Manacias He atmict the car west to the sa, and clove into the sun He felt a sharpe detachment from his physical set as focult his body was bandy here.

Like Angelas body

Argits the remembered is the get with cornellk har who once upon a time had addred her diddy Argets in ballet class in her Swiss boarding school frock, tanned nutbrow at St Crox ashido her Arliban them

He had given her everyiting a man of he weath could gave an only disuption

He contemplated the images of her like imporing a rosery, found them cool and smooth as marble. Lifeless. Revealing nothing, How had she turned into such a rotten filteen-vae-old?

He and Joanne knew as much about proper child rearing as any other modent, engligened parents They had showen to give Angela quality line and a sense of other mither life. They had carefully revewed the ranness the testham, the schools. They discussed her faund the backhools they back for her the ...

Potheps Jearene should have been paying more attention. She was the did with a mangled hand. At nine, tan, and alwan har sim tanned body bore at one time or another a trightening array of broken bores: a nb both forearms, the kit knee once, the lift and/o two-

And at thirteen. At thirteen, a learstained face on the videophone. A young woman with a wound that wouldn't heat

But the young women's latter was a barg importent miss and have advaced, displeased with her with her recklossress its couldn't understand her pain When he flast to Darsvin and Lound cut what crazy prant, sheld pulled this time, he'd should at her humidade her, learng he'n the hands of starrages.

That was whon she started to change

Turner realized, when she slipped completely out of his control

He came to see her for Christman etra refuxed to soy a word. Ho sort a diamond pendiant for her lauteem birtday, the serit the paciage back to firm unopprind. Every meeting became her seal her rags, his rage, her rags, and barrise with an and her son abortion and demission with a bortion and demission barriage with seade tracks in her aum.

He turned the car onto 1-35 to Hall Moon Bay A gongrous crystelline Calitoria rightdescended State winked on Venue and Mars algoed with a prescent moon Turne had always hold order



mother, after all. One or two lees feehiotri shows or parties

Tarrer Introder Indi never had much sprar the subjection in the last the system CED of Landow which introduces in the system of Landow was the lasting produces of planaterit and conseny lost the U.S. Ar Porton swell as teveral alled powers, and monopolate with system stuffs busness. When he had taken a moment to said hemail his career. De Incasa battle position – events with the system state in the same of the incasa.

Angela was a ways a wild child, daring the world to crush her. A beguild baby with sibraised lothered. An eith five-weein the highest regard. Now, as Angels lay dying, the networklike order of nature Med hor with desaust and leafting.

He had last seen Angels a month ago.

Bits introved up at this animal Food?-T (Day party L and/over inductives A bit f tad basen encleta batteril Universiticas Aniesas animal share before the second tead basen time. Nave professional animal second that concells incrives possibility cut and shared and greener into one mentous registerial incrites possibility cut and shared and greener into one mentous registerial incrites possibility and and shared and greener into one mentous registerial incrites and animal the hoodim howing which also the diseased for the occusion in spleved writings on worse allowed writings on worse allowed on the the second stockings visibly held up with a garter belt, and a black leather picket emblazoried on the back websit, rds

'How date you show up here looking like a booker," he said

"I'd rather ball than make bombs,"

"Go upstars and wesh your face"

"Scnew yo

He sezed her arm, bent her over his knee and whacked her on the built.

She screamed at him. "Fucking baby latert" Right in front of the deputy Air Force chief leutenant general

Turnar had the budier and the driver throw her and the boyhend out until the end of his party. She ddki i come back She disappaased with two thousand in cash i solen from her faither's dresser diswer and her mother's ruby ring

He wached House 1. Fog obscured the treacherous cirlls de road

He could see the whole Founding Day incident now Clearly Objectively As frough he had been someone else actng out the part of himself.

Bod she know how to push the buttons Baby killer right And of course he dat a invergent, just he she wind. White a loothe was the was still reaching out to hem. The groppous kills black to her to her fracebasis was two ging to look up her shirt. Dat her hooftum therets really call her Arged Aad?

He was laughing. He was crying He was laughing

There was so much he wanted to explain to her. There was so much he worted to ask her Hoar old also describe nen to her gelinande? Did also have any gelinende? The missed behalays, the loa: when She was like a hitropiet to him.

He had never meanl to furt her Now all he wanted was another chance to be her falter.

He would not let her che

Turner got back to Palo Alto and the corporate headquarters of Landover indistines at the Brity nu Tre called Stanford Michael got one Dr Bryant, a burn specialist in charge of Angela.

MERCALCARY the was pro-

But she was all on the otheral lat Bryarf explained that she was vulnesatile to the most more released in the body and the primary defense against disease had been writailly destroyed. And because the site also markans internal body temporature happherme threateed

Not to reverso the service part. The work learns any approach to a coal to survey diversity and particular to each particular and survey. A most owny electron reve ending was exposed. She was drugged up hyperif the winder bury dream the drug therapy half posed this therastment any therapy half posed to be the any particular to the therapy and particular bury particular and as said to prove the weight half to the therapy any larger registrial to the survey and particular bury particular of also remaining to coel over her coccurs

"Come on, little Angel Ass" Turner whispered

"Excuse me?" Dr Bryant said He ning off

Al so-thirty lune is voe-passioan of R&D anwed logayhis respects A gaunt grily main with an intensity of purpose twe had chiseled both this face and his career, he bore yet another funereal atrengement.

Stock. Don Richardson said and safly shock Turner's hand. 'Such a boauthul daudhar We are all so sony.'

She's not clead yet. Don. Get a space shutte preposed. I'm taking her to the burn center al Johns Hopkins.

Retardson had been an apgressive advocate of a civilian managed specie shuffe program when MASA had bungled another launch Turner never longot who had had this vision of such a profile able future.

"Why Johns Hopkins? Richardson

 There was so much he wanted to explain to her, so much he wanted to ask her. Al he wanted was another chance to be her father He would not let har che.?

demanded "Stanford has one of the Inest burn centers in the world"

One of ant good enough?

Ta Marganet Bryant is the besit. Hich and son said. Besides, we can't prop a spece shuttle overright. Not even for you Jack Laten Jeanne saje you were gone at notif.

Drivero Turrer and

Driven Tit say You look temble Don't blame yourself Jack. Come with me, five got something interesting to show you blee your mind of theres.

"On no I ve got some business to take care of here. Then I m going to the hosprot."

The wort take long." Roherdson and 1 flink you'll lind it way interesting Comp on Jack."

All right," he said, but he clonit know how he dould not blame himself

They stock through hished condex of chrome end gase. Uniformed security galacts box weapons. They arrived at last at the R&D fabs of Landover Industres. Temperature this UFO Have found in New Mexico ten years ago? Richardson and reports, but he hachi'i given the matter much thought He was a namely to oused man especially when the object of his concentration was of critical importaince. This account of the United States and sourced of her allies had taken precedence. But he dot prevention

"Crisin landing wasn't it? "Turner sead 'Out in the desort."

"Bight," Richgedeor and," The newgatos whoever they were were dead. For Worth got her remains. The rest of the interact and remains of the analy to whatever it was sumed barred down's but Country of the Air Force. We've been doing a Interface amount of exertmention and teams Netnearly as much as I chies to be down?

In spite of Angela, Tumer kit a spirk of curosity "And?"

Richardson showed him two long lables on which the attilacta had been lad out and labeled. There was the twisted hulk of the clashed craft.

There were sumerous sings and scraps and small boarts of an existency ight meteroid fact looked and fellitie balas wood. Tests by Landower shall concluded those would not burn even at extremely help interpretations.

There were several long rols of a brown corrugated parchmentike materral that was as light as to see paper but out-it before only with graat lonce.

There was a large quanty of odd trapped mesal paces. The mesal paces the mesal looked only with the impact of a fiveney-pound dedpetarmer also which the mesal reswred its open allowed on a weeky-pound dedpetarmer.

Scattered here and there over the surrise of all these methanish were basine hereographies that corresponded to noolganistic or code known on Earth. Sevnal scantic of a lighter but sail reservably lough parchment contained thousands of the olyable.

Richardson's stat! had not been able to decepter their meaning

But even extratements antifacts could not fold Turner's interest for long. He smiled wearly clapping Richardson on the choulder.

"Thanks for showing me" he said and turned to go

Richardson stopped fim. This ant why I brought you have Jack. There's more

He topk out a small perfectly ovail metallic blue box. At the touch of a spring the top gracefully happed open like a sepphre wing Bottles, packets jes, and smaller boxes nested within

The Recherdson test holding up a peaklecent will, is good old septopy alcohal "he inschold for another val Tincture of operat And the is ourse, granne Brainien extended in the or the other hand --he produced a step peed size cortaining skewy globules like mercury-- are lianally cut of this world And so is the "

He banded Turner a roll of something household plastic wrap. He tore off a cance and herefed # to furner

Jack 'Richardson and barely able to

Dr. Managet Bryant had bloodshot referred to her papents as crispy or thers.

We've done prelminary tests | Rich

The results are amazing, Dr. Bryank,

"Finant' Low seid Your state-of-thecannot even querantee my deutation will

Tamer 1

Will you at least meaning these tast nasults? Richardson seid 'See f they

Twil not be builled Mr. Turren.

. But Dr. Bryant ward to a conference

soom with Richardson. Turrer wandered tents as though he could will his daugh-

Wry? Turner said

The difficult healing of burn wounds, process depends upon a maintenance of serous exudate-plasma a soun of

But with convensional gauge bandspas the serous exudete desocates over cells must move downward. The wound deports Nerve ondrings become exactivize traumatic nounal response. There skin depth that never host

The align benckson was as in different plastic that was morsium-vepor perme-



por could be freely exchanged through the bandage but becleria and other notwright resource fucts from the external

theiral cells could easily prohibitiate and the flaid, eliminating pain. The awful scarring mont wat more be memized

Why haven't you burn specialists

most wound healing method." Dr. Breard sad acathy But plastic wap on this gross don't want to ball against

'Our inhouse tests showed virtually no-

Ty rt furner seed. Tm willing to bet

Hel, you've got if Turner seed

They stated on Ancelsis left toes. They expected her to lose them any was

contly unstack from the eacher and arparticulate matter from the very protect two material that had opvered if which costd on anory yellow fam of puterlac-

tanh the thickness of household plastic wish the bandace boated deeps and

At once amous exuclate pooled babanciage Angelers loot slosped raping Tarner set up a desil, PC with modern

Jearene seemed puzzled then anfrom Emergency, she had not come to the Black and White Ball the beautiful beby sees left in a manufroor adia a gizmoin his employ at the time were clownstars update blat moon around the lessness. The artifical intelligence in the crudia matched the baby's tarbum at being left skine and trafy tossed her to the floor.

That was the fast emergency ward the fast bruse, and Turner was there

At they the elim basisty stack her hand, no a sinkipsto striple jew. She was refu a stapad child, atte testor in the upper two percent Three charavese of these the catelloartees, was more discusting to turner than the catelloartee space. The catelloartee the model because space work he had model because appear work he had model the model the star peaks knowingstam. But again the came in her badged when her needed hem.

Then she call legard into a ferror teorhegh for her and tho make cavered an illegal three wheelite origin a card curve al Peim marked that and the marked that and and shead the marked that and and shead the marked that and the per Ard Intelly enceived a wound in Generas. How could the head in Generas How power make marked that marked the sheat the

Turner mantamed an hourly watch who to Bryer They agreed to remove the bandape at once it anything atrange began to happen After tweny-bag hours they gathand anaxualy at Angels's becade

dete had become milky not necessanly cause for alarn There was

tion or rejection: which would have been indicated by a greenably velow classificaation or baid odor

But the fluid had garred too much volume beneath the bardage Dr Bryant decided to terrove it and drain

The tip of Angeletis foot wile most and mixy while with what locked like a layer of finely ground curds "Wel?" Terror sent. The raw curdled

"Wel?" Turner said. The new curdled fiesh and slicked bones were accusations of his fatherly balane.

She's heating. Dr Bryant said She's heating overnight?

He relef was tike an orgam. 'Then take the rest of that golddamn gauze off Bandage her up. All of her

Don ( you think we should wat unail we

get trial results? Something definite?" "I don't want to writesis another chanc-

ing of her gauze. Turner taid. The way you have to teer her. The pain you put her through The infaction. Bryant i could still loss the because of some petty infection and wai know if."

Yes, Turner You don't need to tell me." "It's savage it's primitive Get the private

For once Dr Bryant was quick even

Angela was scon wapped head to see in the elem bandage. Pools of heating flad formed, cushumon her.

Benaath the swithe across the lower half of her runod face. Angels smiled grown back. Four pink inalfess nube as chubby as cherufus. The life toe had appearedly strophistic. But Turner dedn't case. They hadn't expected her to heve any toes at all.

Incredible ' Dr Bryant said, examining the delicately skimed appendates

The subculaneous tissue was so raccally destroyed that most burn votims as tearnatized as Angola face temple vetally reparable scaring.

"Account for this then

Happy Codorniu Year!

Codorniu

Uncork an Occasion. Vintage methode champenoise, since 1872.

Well Turner I suspect the bandege replicates healthy cells inno Tray an establishest and actually rebuilds insue She gave him a penetrating look. You are satisfied with the healing?

But the life toe

She washi expected to have any loss at all

"Yes" Dr Bryant sighed "By God, Tumer, I we could only reproduce this stuff Tinker with it a bit."

"The attlacts are still classified top secret." Turner osid: "Richardion couldn't possibly rolease them for your general use But II see what I can do?

He called Richaroson who called he Ar Force After some persuasion the Air Force declassified the banclape and the banclape and the banclape and the banclape and the banvalant external must never be nevested.

The was the first act Turner had un-

denteken in many years that did not yield Landover locastnes a prolit.

#### Angola heeled

The poste of fuel nutrial characterity the layers of new skin. Her fingers restored, a bit this, overlong and realists if was rue and again the fifth digs of spheid like her ittle loos had But she was smooth and span-time.

Against Turner's waites Joanno wert to Genova for a long weekend with one of the clandych girthends. The gritheind wore a black Besalino and carried a brass-inobbed carre

Turner saw tes claughter delly. He could not earrember when held seen so much of her. Years ago, perhaps, before sheld

period the two werp-due hours Arpels was start of the onicid list. Because her exposed nerves were balted in her body a natural healing fluids, she regestered considerably leaves peer She amiled, medie coord sounds, even gogled two. The morphrne was ditertialcally reduced.

Jeannie cated the hospital once, promeing to come for it wat but clidhit show up. When Tutter called the truss she was out

Dr. Bryant discovered that the longer the first application was left on the mole quickly the optimelal layer reconstituted isself and dermal problemion began. Turner tension medie the med-bogging descover that his disubline's loss had variabled to London. St. Crox, Geneva He togged in the treates than days for Londown industrial in the organized of fee. The company was presering to learch another sense of agaloa shuffee with military and industrial applications the organized the new company with the usual rigor.

But the work he had once devoted his life to assmed automatic now is program he could uplead and execute without much serious thought.

Angels slept. Not a drug heavy obleon but a peaceful ceep slumber unaded by morphine. Turner was disted the enduced the days in a state of number py netering life but the toking of the hours and the hourly improvement isconted on Angelsis individ.

So much to explain. So much to ask She was healing at last

Until one morning something about her legs, looking park and tim banaath layers of the bandabe bothered tim

Angels had sives here is long-legad get in balance statics have a long-legad mass in tainet stockings breach a Band-Mid oil with tainet have a excernity webhad the twely lefts of the largefrer flow as he period through the translugent band-ages above in our oil of other long and mass above the out of other sets and mass above the number of the sets and mass above the translet used scen of her chert, something defmetry definition refer

Sha had two knees on each leg

He summoned Dr Bryant Wel?

The surpass and the sonow in her eyes Med him with dread. The asked you daily Turner. I thought you saw I thought you dain't daily

"Dight care!" His rage tashed live a whip: Two seen hier wounds heat with my own eyes. Twe seen her herd of pain Thet's all we paned about."

But her feel Turner Her hands Do you mean at this late date you ve never looked closely of her laten?

He explosed "What do you mean?" What are you seying? I'm a busy mean Dryset 1 depend on people like Rehardson and you to see forme "You and she was heating. You sold there were no source"

And that's two. But her physique Surely you've seen the multiple God Turner. "Dr Bryant said and her an gush was like the ruby red beam from a police cars top kipht storing the right "Said informat".

Turner left Stanlord Medical for the first time in a week and went home

Jeaning was there brunching with a geople of her superclass frends.

They quareled in front of everyone

1 know what's happened. Jeanne seed bright with anger though the debt home at all. This crazy experimental interment you barrieolied debt work. Do it Jack? Street bloceleady methode land sta? Shat a teak. Bhall never have hends or a husband, or a normal ke thus should have let the de". Turner struck her access her shapper, sogied chosel: He had never hit a voreang hose in the life. He host he host down herty mean erfel through the room ush hard solar Fancesco When beetug Galdrec out he to bring distance, he cases thet chase to addarg to the Caddes many and he was not, on prongle, a velocitie of view T let took the Coucernise of stargs and sworp back onto 100 acuthound. The car phone starg castede of Sam Make

Dr Bryart and Argelas bendages were coming off She was fully conaccus She was asked for him

So much to explain. So much to ask. That hadn't changed, had it?

She was atting up. She was gloging Her shin was the color of cherry blosmerry was dire color of cherry blos-

Turner triad not to look at her body as he watched Dr. Bryant desengage the liket bendtage from her face

 Her chin was a trny triangle. Her mouth was a lipless sit Her eye sits were long and slanted. She opened her mouth. A tubular tongue unfurled like the probosos of a butterity.

Harchin web a tim shangle Her rocuth won a bottes to Her now was not insise of teach own. Raing matrix limits with blond luzz. Comeils har was should proving acrust ten handle and acring acrust ten handle dars. Her eye also wron long and attract, with glering lucks rease mit in bright yelves comess. Bin opened her mouth A tubular tongue until fell kill the probasis of to butterfly.

"Of course Angela: he said "Haven't I dame?"

"I guest still "Her voice was like a brot chitping through a microphone "DasDEE" Im glist you calve. All, I elver wan TED was to see you aGain."

Turner asked Retriestors to hete model the north-wing of the house for Anmodel the north-wing of the house for Angels. She dialked humships cold, some Retriation worked with the architect. They disagreed a object citriny if wich flucreations. Turner is tousined and moded aufless of permanent damage and datagultars. They were stock porthold from Angalais wing. Her father would attend to all her needs

Jeanme installed herself and the dandyels griftend in the SL Crox beach house. The griftend has taken to wearing black leather pants, speked wearbands, and lette else. Society oolumnats, speculated societ Jeanmas marriage.

Concerned about Angela's mental acjustment, Dr. Bryser visited often at Inst. but site and Tarrer soon obscrived Angela had reconciled herself to what had happened. Indeed, the gif was chappet othmetic, thinsely culcula.

She was established herry destroos with the long, dender hands Sile loeted at lead merry blomith fight. Whe splice is stange cobroos that at first wee hand to understand She Imyerged Lewis weety two inches in the hip, herrif-year inches in the ion-serv FAAA Actists and Espit revealshits. She had a probligues appende for main chacks.

Convalosoing she had gained uncarry self-knowlodge

She had learned self-destruction to wrasthis attention. For years his strategy worked Unal Geneva.

The hist became a sty and somey thriteen year old and she huy hed not hown it was her harmonia that stand her boarding school hook. All the saw was the blood and in would how would not heat. The longly get who lived in boarding school and her want mother and houses peoplet, by police servers has decleted on the hast into all other mother any school ben the standard her worker in the same and any school ben the same and their all be hast into all other mother lifest alled her.

But her better had not seen that the was the time when little gris become worten when ther own bodies become eller to twee, and the charge could be hightening pantal. All he see was an order measured twee nuise and a spoked daugher who had called her from he boardsome one time toor many.

His packed for her for generates.

She select to and the silen antifacts, one of which, she quickly pointed out, had served her the

How could Turner refuse?

But Richardson could and did

'Jack there are gadgets, and acrole field with those herogyphs, and substances we haven that the time to even lock at' be and

"I'll tell Angela to propare reports for you." Turner said with pride. She's a gerava role.

Hall Jack everything but that domin bandage is still top secret 1 couldn't let if out of my seaht if 1 wanted to"

Then get it declassified Don The Air Force has been eiting on the thing for a decade I would be you money they don't give a damn ammore

The Ar Force distrit give a damn anymore, but the deputy Ar Force chef leutenent general let Tarter persuade line just the same This was the second nonrolfs ad Tainer had undertaken lately



# DRY AN

NOTHING ATTRACTS LIKE THE IMIORTED TASTE OF BOMBAY GIN. INSELCA FOR HOMENCAN ANTERESTICATION THE STOCK THE STOCK AND AND THE MERCEN AND THE MERCENCE AND THE CLOCKER FROMSTAN VOINE INSTROCT FROM THEY WILLOCKER FROM NOCOTION

evoted With an hour she had the craies. Inthe volume lack the Ping Pong and bumper pool tables in

'DucDEE, 'she said 'Trn F faxer/ What do you meen Angela? "Takeri she sad She ported to two

what LoW

"I PAME up, charffield, Which I want remotified a lawer OF rudemenTARy EthaXed consciousNESS was

had reconciled. He wanted to reclaim manicer

she knowed the strange scrol like a longkey have him any id terms have skepping away from him to some unknown place be-

Weill I don'T know dadDEE Im pretty much F flaken nOW

104 DMNI

He becan to thek about function a burn. I filed with alwary globules and popped

'Angela! Richtedson and ha stalf don't Turner had never seen his daughter so know what that stuff is Bot if out. Right

grocied A brant bissh bicomed on her

He was happy she was happy. But a

One day a puthol series associated here

It'S okey dedDEE 1 m groWING sProvEtuT WinI to h' solle?

She allered him a discussion chevroy. writiked wedge that looked i kea new ho

TakeNED & dadDEE Go Atlend Bre with a similar but repuisively differord, plant Instance

She grogled at his grimace. Her laugh

"The mGs say #S betTER conKED You or SAlty The Skin when dneD and crounD, makes a cutNAmony To be borner she we showed the type and entry FRE Bull you and Shit and other

thinGs to do the BRead and meaT diStins' She showed him the garden table. On the Mexican He was a thin taver blacts And there she was, growing

"On dedDLE." Accels and "ThereSe say sPoreFnail groWs muCH betTER in

Tirper fically became mally alarmed found that Angela had built something. In the middle of the tampas from Out of

She proudly showed them the interior About one handred and twenty scares ulously comparimentalized. A little more citival actions and theil would do the lock.

Well L. shi'll fly in soriCs. DoN

'Don't you use that language' Tumor

"Oh helt, dedDEE, fM roT a MILE ort,

"Fix in scene?" Bichardson said What is the meaning of this Angela?"

Turner said, kowning "DedDEE if a s ISHo" She indcated several heroglyphics still exposed realSt terri Y Smith E and Y

Richardson circled the craft. Take it ground

siTSHip flies in spaCe Zero G. The that they gaN assemBLE as they gO gOod in this healty amosphere. I autS ImsAN kOR at all the crAthes

"fou really mean to fell me." Turner said. incredulous. This contraction will by m "Hell, yes, dadDEE " Argeta said "The

mG8 new for InchT-yearS CINco YOU billed

"Oh plesSe dadDEE "She turned her peaking gesture

Wheels "Turner said "Tive done every

1diD 1dD 1kWe you dadDEE You've spenT more five with mE sonCe the AC- as mysel I when I waS Human You have

"What will you and beauties that lowb-

and rools in the arithmits And I can bBred chckENs. The InFis and chckENs. do real, well, in zero G "Where the hell will you go? You know

nothing about source The got a map There also proc

TIONs to the JoVian buoybeAM beam?

The FilaXen helve goT buoybaAMs all over the universe dacider the spaCEships ThiS parTicular buoybeAM

passes need a Piter it a not foo talk he sad, evapperated

TI brEEd calls The FilaXen love calls."

T could trade chickEN eGGs K-

"But cladDEE " she seed. "I'm Filaken

colli MayBE on the burshelfM L caN

SuBal DadDEE you dON? wanT in seE mE, you diON1 wanT to ACcept mE

"Laccapt you for what you are," he sed

TheN you can'T shu'T mE (P in the houSE for the resT of my VFe. You'Ve go?

Yes," he said at last, but he didn t want to face the inevitable 'Please can LoO, dadDEE? Please

And in her vollow and black eve sits arlined her daddy But then he bloked and the life or

was gone

On Saturday Londover Industries sent Don Richardson, the space shuttle held sion speceship, a filteen veer-old gift four barriam here plus a roceder, and four

On Sunday the obituary for Arcela for of light and leading DO

The Indiana Jones of the tayern scene. this anthropologist studies the American dimker like a lost tribe of the Amazon In documenting the rituals of the bar, he's discovered how and why we booze it up the way we do

# INTERVIEW

JAMES SCHAEFER

sain daugies down on the car windows as Jee parking kit. 'Most anthropologists spend a Metme frying to find a tobe that will accept them." Scheeler next as we approach a building pulsing with light and music. National of ambience every hight. Monday rights the theme is country the cloor is a big sign that reads Annone who is NOT OF A YOM acceptime " Scheefer is an anthropologist whose tribe is Amerstart threfers. Associate professor and director of the Office of yoars studying American drinkers, the bara they patronize, and

We enter the Hoggsbreath a bar on the outsizes of SI. Paul

Clearly this is Scheelar's territory. Like some kind of Indiana Jonos of the tavera score, he swetchbuckles a path facuati the mass of humanty to the watering hole and orders drinks. The Hoopsbreath is a theme ber and thus features a different sort complete with free shots for the contestants, and all the burno earlier, "can get down and dirty

"How there's the professor?" shouts the ber's cowboy DJ clock mean Weatches Bories fiel? The filter approach with boost and hases. Then these urban cowboys break into a chant

Bernin Schenertarky New York, in 2042, Schoolar is the sen-

PHOTOGRAPH BY MICHAEL SOMOBOFF



•Faving bean there— Interally having gone to skild row and back, getting into fights and getting arrested and thrown in the drunk tank, then getting balled out by my favorite barteroder—gives me a kind of credibility.<sup>9</sup> c) a Grave Electro sontra velo decomento fe proceso de clara electro, comento fe proceso de clara electro, reaver, in admissione autoritaria autoritaria reaver, in admissione autoritaria autoritaria veges tasigue altaria, autori i 1905/Scheder enfolder el nel la sontra i de la clara de la altariaria autoritaria de la clara de la clara la clara de la clara de la clara de la clara la clara de la clara de la clara de la clara la clara de la clara de la clara de la clara la clara de la clara de la clara de la clara la clara de la clara de la clara de la clara la clara de la clara de la clara de la clara la clara de la clara de la clara de la clara la clara de la clara de la clara de la clara la clara de la clara de la clara de la clara la clara de la clara de la clara de la clara la clara de la clara de la clara de la clara la clara de la clara.

When School's couldn't come up with adopt of the doctraft these is a uphase asked what it was the School's field to know a circle about it is momentaria function. I have a circle about it is an experient function the lines work togeth that days Schoolhold togeth of theme that school togethe school of theme that school manual babe spanns and chronicemens in S2 that scoeted with the line that the entrop the IPL with distriction

Becaute resultable the University of the mature all services are set of the mature all services are set of the set of the

And on their particular rught at the Hogostizenth? Its definitive turbers of Scheeker augs Thebarrs crowded The dance floor is crowded. People cent rodly move They'l get lisatitated and start durking more and chock out the lighting its which call swightlighting list light enough to see but diak enough to cover the faults.

In 1978 Scheeler moved to Minneepolip to the University of Minnesola, where he has since taken part in several research and development protects. In 2029 he and Linvesky differiting gasuate student Paul Bach published a peer on size country music and direkted. It put Schweire on the map in nany onciss, bast assertitie and kijn in 1955 he was enlated as a coprojed investigate with toorchapt. Richard Sykie, also of the University of Manesata for a forgionem among taxem spatiation state. Molecula fuel accentity participating in an investigamany taxem spatiation state Molecul Management and a study of antioenteriorthal millioneas on cambring and of mineorements.

Append remains in a United Stated International Control Control Control Control Control International Control Contr

Schaelers intropuently hired as an experi whereas for both plantfills and oblandarts in disults driving cases. He has served as a coscultant to major low hires around the country and to the Fredaria hield Commission on placket lobility and haucklaint advertising practices.

Scheeler is also an entraprovision of sorts in society suices to has helped ofsign bars and has let the expertises to the development of Alcosoft an arts inforcant and hangover termedy for 21st Century Phermeonulocals

A JS Rey spent on extended weekend with Schaeter barticoping throughout the Twin Otes—from cowboy horth at the Hoggsbreach to the upscele Rupens is upsel revoltorhood ben

Densit How did your bar research bog in? Scheeler I look a job air the University of Montany end which waiting south of the aid places any your after (through should applying decay to greened how the call waits White cauld (decay) an in mailual place where people direct? (I started banging cut all over again only the laree with methylocolid in an effective)

Barmy Thompson, owners of the Tasis Drin Missaulia were by the that baits indexing to aver aper A manths that buindexing to the soore. One day, attuch here has the pace do which popular admit I saw the pace do which popular admit I saw the pace do which popular admit a saw the pace do which popular admit to be pace do which popular admit admit admit admit admit admit admit polisities admit admit admit admit admit when ways with the popular admit admit admit when ways with the popular admit a with the red bean loses and lorks out the money to play the skebox

As the que with the wid beam headed towards the physics, regulates stands hear is audiothy exaded that here was a microscopen of bat subtraction data with hears is audiothy exaded that here was a microscopen of bat subtraction. Second subtracts was a micro-audiotic stands of the subtract stands and the subtraction subtract in the subtraction of the the subtraction of subtraction of the subtraction of the subtraction of subtraction of the subtraction of subtraction of the subtraction of th

Back at the office Paul converted the mass risb backs per minute and corelated it with the number of sps per minute. We assumed that as the tempo went up the driving workt, too, but it didn't but not that every sover songs went with tester segmo

Next we locat a type, content not not all begins of white or contrivents on a location of white or contrivents on a location of control of the staterege of late controlling the white-theneon of control of control of the location of control of the stateverse in the state of the stateweak of the state of the state of the location of the state of the state of the location of the state of the state of the location of the state of the state of the location of the state of the state of the location of the state of the state of the location of the state of the state of the location of the state of the state of the location of the challenged the norms, say punched achieved with every time.

Betweeter Viran and do hely give you daread There is a recognition of normative sourch is table and when their norm is being basiler or challingad paople will laws or it is this or preferences to known. At the Traits lines we ded things like plays may a singurance of slow songs and took a baseline occur of the number of times a baseline count of the number of times the coath respect range at lawsy-immule marwais. (of that acception fitnes, and one the base machinized.

Orese You also began to establish a risk profile with regard to overdninking. What did you find?

Schenier There's a graater likelihood in a 'high esk' enveronment. For instance, moderately is bars with a twelght and of darkness—bright anough for effective crueing but dark enough to cover up twells—are high mit.

Heavy driving also occurs when the sate of monito women is high, like five to the Owniti one. The sense of very its batteries beoperating thermoses. These suboperating the senses in the sense of the sense operating the senses of the sense of the sense and the verse senses are senses. The sense of the sense of the sense of the sense and the sense of the sense of the sense the code of the sense of the sense the sense of the sense of the sense the and the sense of the sense of the sense of the sense of the sense both down are sense of the sense parameters and the sense of the sense parameters are sense of the sense parameters and the sense of the sense parameters are sense of the sense parameters and the sense of the sense parameters are sense of the sense parameters and the sense of the sense parameters are sense of the sense parameters and the sense of the sense parameters are sense of the sense of the sense parameters are sense of the sense of the sense parameters are sense of the sense of the sense parameters are sense of the sense of the sense parameters are sense of the sense of the sense parameters are sense of the sense of the sense parameters are sense of the sense of the sense parameters are sense of the sense of the sense of the sense parameters are sense of the sense of the sense of the sense parameters are sense of the sense of the sense of the sense of the sense the sense of the sense the sense of t

Centry: What about low risk civiliang envronments?

Scheefer, Bright and very dark bers as relatively low-risk. Casino bars in perio dar are on the bright side because the

In small-town America, the bar is the gossip center the center of social activity Without that corner bar to go to, there would be more homicides, vidence, and trouble ?

premiume not or driving bit partition, Download to send to be more of a source of a source base more of a source design of the source of a source of a source of the off news and the source of a source of the sour

Ones How does behavior differ in cetain types of bars?

Schaeler: Observation---not leating--table me the datiking in the rock science---, disco rock, or live band pop---is more

controlled. A slightly different games being played in the country-western bar there's note male acting out and rowdy behavior." Lefts get drunk and de somebody. In the rock and pop scients freets a premum on meeting sciences, impressing them with your good laste in drink coding and maybe canong Ower, What sbout the Cherrs kind of

Barlater (14e in the time) Eloc rentoe ingo corrective particular in the trad states of values that is antifold at a correspondence of values that is antifold at a correspondence of values and the states of the states of the values everytable to the states of the states where everytable correspondence of the states that a correspondence of the states of the the society of participation of the states the society of participation of the states that and the states of the state

Sometime: The back news is that mere them, thy periodic the people in a ber of a given time in the ansate we simplied were retrocaled heaves percent scenario (i) in intracoular heaves percent scenario (i) in interes or more of the an their more of the shaft pay a drift at the the the hore hore your well ower the legal limit (10 enlight) for blood alkaft)

Biopressing: Pichard Sylvers study are performed to the same strength of the salf are performed them performed in galaxies and they influenced them performs are Carnityactive observant automates of slightly and semaally indicated the permetphone of the performation of the control water based and perform the control water based and performed the control water based in the survey of the control water based in the member of indicates the other based in the member of indicates the other based in the member of indicates the other based in the survey of indicates the other based in the other based of the other based in the other based in the other based of the other based in the other based in the other based in the survey of indicates the other based in the other based on the other based of the other based on the other ba

But while bartendem are accurate they inquestly are ownereving in most parts dictions, ownereving in approximate the hough the sites have have not provide the least arent out here styrig bornante thetabut ownereving makes for drank drawing and is the start of alcohol advant Dear Have you found regional differ-

erose in ormaning patterns?" Schemeric Lob The Southeest opremisity has very low consumption mass yet overy finding operations has benous drinking problem. There is shat adversor to the titles and Francematakan when too be an experimentation of the too had. This is overdoer in many toosethad. This is overdoer in many toosetton spect the values and become doold bulkers. With two cards if whet a too pamment drunk driving the as too pathement drunk driving the as too backheed are the lowed in the county

# So sorry, Stoli. O.J.'s gone over to Premium Black.

### Bacardi Prenime Black One sip, and you'll know when

moderate danking, and that pert of the country is also not in the routide in terms extremely heavy drinking areas Taxia New England states are very high its sumption leads to consumption of spints

Oters Whit also it mentler deferringen? That basn't charged. Older men dank in the day, as well as later in the week. were to co min a bar alone early in the meeting the cultural norm. Now Russday moht is lacked moht, and thet's a websonald phenomeron. Woman do come her champions Usually frey larve then, upless they meet someone who's worth American Indians they any other oncore staving around for There's still a stigma. They uncue inteal traditions have now is a strong theoretical argument, sup-

accentral a woman being inforecated in

Great But certainly you've seen women

Schapler: You mean when they become beyond the cultural norms. then she becomes the subject of reministration. There are a good number of predators lookend for women who ve had a little too much. good shift drivis to make same share over the edge presumably not caring what but alcohol in mediately monorherin 1 mine up to men and twon churkerows, freen

Scheeler, You'd lind about the same rate however, more excessive darking among

There's tracedy on every reservelion card to metabolizing alcoho

Some matience successis that conets have an encyclin system that is slow to pounding of the heart, soweigno, and

centred by animal studies, that done perbecome addicted to alcohol. It may be aniation remain to tolerance builden an to enhance the animals proving for sthanol, and they go after it until they

Other What's the role of the local bar? Behavior If you consult chose to much picchol, if would probably have other place, where we fully circle, and one one new in service of the headh of the northmunty Without that outlet we'd have man magazie we recently passed sincter drunk deeoo laws that unshifted the possibles

for drunken drund. Shorly thereafter, cinckers were streng at humb Bar sales

T's an age old medanation but I am alcohol in a relatively controlled making erverorment where protessionals and our society can blow off steam. In smallher the caster of second actuals. Million 6

Schweiter, With mile and mediced? It's heart

Owni So he minore les o he hot? colocists say absend sinder row he another human drees for net nendeeatly believe that the occasional search for an altered state of consensus a search shall be Other in your opinion, what is a safe level

thety-free drinks a week or five drinks a

day, you're rekno chemical dependency to work droks a work, with no more that you can drink Shek to your limit if you

Sebaeler, is the entir Solver o int of events

Scheder, Loover did anything official 1

Premium Black. The premium is on taste.

## Bacardi Premium Black. One sip, and you'll know why



Computer animation makes a debut in



Sometimes they works to live if homeselves flushing on the Big of Biograph In warks a main mobility gold. They would rise fourth the controls, and trenslate off the colarie of hings. Along a cost liner. Alternoors were spent aco Mount Everest and evenings, deep in the Seeregis Intermity of hypere cough Inton the brush. A right they turned the system to a usability and wind to sleep of thing Bairth. Can creas side of the nom hung the blac-green ourse of oceans along beaches on the other a solid sensitivit of netwisian and status, more britiant han anything visible from Earth in the network destruit tays are may be able to alter any amountings through secal "visite deploy page" mountes on the well. Alter due to the home at heim resolution from visually anythesis of mages. What's more this scenario is just one application of computer entrinsion: a deoptime that will change the auxy we year art, science, and the world.

The poneers of computer animation have already made areads into our lives. Computer now do most of the files and credits, logos and promotion getpilices on TV as well as an increasing number of alreading commencial. Some of the most opcular examples.  Re-creating color and reliection, shadow and light, animators covered their designs with fabric and skins 9



accessed in 18th on MBGT 1 and A stills There company, moving by traditional obegine risky Marke (in Montes) being observed and a fair to top 1 shaft in stall obegine risky Marke (in Montes) and the stall observed and the stall observed top 1 shaft in stall being the stall being observed top the stall observed top 1 shaft in stall observed top 1 shaft and top compare any start of the perspective of start on the stall observed top the top of a monte store of compare any start of the start of the start stall observed top the start of the start of

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Province pages: Computer enviroled season of a statuture by Mait Malexas; presented at the Los Aragains ideated of Optimeter Above Computer anymeter basit by Dark Londs, reth computer anymeter basit by Dark Londs. In the Optimeter and Computer any American 18° Optimeter a Janey motor any other any neuron a Janey motor any A if if a first week increase, in region and a first week increases and a first barry and an increase of the second and a second and an increase with increase starts that and an increase with increase starts that and a large start and a second and a second and a large start and a second and a second and a large start and a second and a second and a large start and a second and a second and a large start and a second and a second and a second and a second a second and a second a second and a second a second and a second and a second a second a second and a second a s

These taritating propagate senergial a bare 25 years ago, when Frank Shahn, a mathematican working at Bell Labs, amend for work to Ind a hage new cumparth fulling in the combine heladal of chaving lines on reame of tantold paper with an armsy of pairs. The dwares particula to output on a phosphor screen—white the output of as a compared monitor. Almost immediately, Smaken and comleasage. How Rowsker, 50 States, and Restrict-States. Mike Nol--thought of using the device for the magical ant of animation

In enrolling accession maps are drawn to the eye of lates of lik or maps per second, causing the time in percase of the momentum to full or drawn of the performance and the second second the performance and the second second second operating upset performance and the define an image by partitive on speccase of the second second second second upset of the second second second second to define an image second second second of the set of the second second second in the second second sec

ing skills required for accurate randarrigs of the real workt. these conventional realized they could use their new comstore realistic than ever before. The idea on the formulas governing light and mo ton Using the computer entitletors could then calculate chances in images by cram would use Newton's laws to calcuimage of a ball at that ponition then it woold calculate the position of the tech after two solitoenthis of a second and print that, and so on After 900 majors had created by Zoac distrated how own scopes could be used to stabilize salel-Hos. The stream seen on the sumern was tumbing around a simple sphere [he earth) When the ovroscope became co-

In the years that followed this that computer tick, moreous photos have been made. During the Severtree, for instance, animation devideed formalistic calculating the see and photo of 3.0 terms from any gaver angle or detaroos. The esubing animations, including such features as irregulate polyhedrone turnolling in space, produced hardwole of anotabe carrers. Computer animations peel foThe carners swept through the ant's eyes into its head, revealing a second, humanoid robot ant at the controls ?



cased on paragraphic transport of the paragraphic and local transport of the paragraphic and local transport of the paragraphic and local transport of the t

By the curp of the decade computer animation tada attinated a group of wisorery-young towars observed with the tratationg revealed with the intratationg revealed with the representation of a natural phenomenon libera in the defancia as a begin white light." oxplaint "Point Oppomenton, a computer animator at the New York Isontate of Technology and one of the fastis regregates" knows of the lise of nature are encoded into the computer. In the enclusion of the theorem of the lise bet?

Leading the fight to the light is SIG GRVPH (to Special Homas) Group on Computer Graphics), whose momiters have produced time spectacialle percendriverk, Attaincling the yearly BUGHVPH Londin thought a sequence New York Institute of Technology an mater Deck Lundin thought a sequence newer graschot art. Weening a Hard Isac, the art amped aligns a maid Isaact a com-

We arether Lunch animation drowed a hole wide with work, spirsk typing ch in all directoria. As most of the automore how Lunch is dong pert weeks on the physics formake used to determine the largetoxies of these speaks. While priparing these equations however, Lunhal automore these speaks. While priparing these equations however, Lunhal automore through Suppose a passi like backward with the welder hep-th of the bacrone activity while weld the perturb bacrone activity while welder the perturb bacrone activity while welder the perturb and the perturber month

What we saw, says Bill Kovaca of the software frim Wavehort Technologies was a potential for unprecedented control over scale and perspective is potentai for celetra serger contractede with cipe figures or contentional arminon air Modele gave you a realisic look but with each the content dawa arminosem—con wetcomit cancering—gave you contral without the look. Computer unmateri could give air betin. You could acake the mark of an decine charaer and then ly right heles couled like celete and then ly right.

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The tissue is due to natural decomposition,
to some laserlike device \*

# AUTINIATTER

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But now the debate has been rowed. According to award winrang firmmeker Linde Mouton Howe author



JFO UPDATE

of the new book, An Alex Minnedd, the sthenge surgers and and have been particimed by initial a positivity of Turnam as the abbandless start. To make the appunding from providing on core studies with the book of initialized transmission of the start of the start of the start we enforcement of the start of the start of the the second the above the start of the start of the productions and the start of the start of the start of the second the above the start of the sta

Her aftertigett evidence hoevvor, e. a. modulai report or issue samples taken from five mutitated animals test March Constucted by pathologist thematiologist units. A software of the University of Colorado in Demen the report found that outs were made that a temperature of at least three hundred interest ill internetion in item for the report.

The report. Howe says i confirms high heat as we as apid pinport incisione that exclude natural precisions." What's more give adds the laser equipment needed for Haute deborroelland -- House a talent work of the training gan author of Mute Evidence (Banfam 1964) a book about packe mutaation, concurs. Howes theory he says "is mcontoir to prove

Kervetti Pornos, altorer (Billigger) and withor of a 201page tearset), include tears on the subject is exection as well. Calls multitater came age Rommel are a touch of persogne a country of the subject of the subject of the robust and the all influences and the subject of the robust and the all influences and the subject of the robust and the all influences and the subject of the robust and the all influences and the subject of the robust and the all influences and the subject of the robust and the all influences and the subject of the Maxim Subject of the subject of the subject of the robust accurs at the old of multitates of them

But Howe is dicking to her gund. Warmeas a the very hatmark of the animal mutitations "site says. Over twentytio years very little makes sense. This material should be heated coefficient like any other medical or science story."

perpending high-head accessors of lissue can weigh more than use hundled pounds uses a team of expower the data that prover the data that a setunc out could be operating such that accessors of setunds in a setunce that does the seatement of sten Me sources of sten Me

The stepping do not legale. Control valuereason John M. King says that every muttion bine the rearsolar has been questonate. Reades to says after studying Additions chats head damage in the tissue is due to extrahyme-



#### Second Second Sec.

George Anderlann is psychic medium based is featylon, Long heard, came down with official point in 1568 at age six The threat in claims, left ben with the ability to hear and see these who have passed to the refer add.

I brick there is a scient to explanation for what do we just haven't found it yet Anderson deplans. It suspects the high fever I had as a child start skilled part of my brain and my abilities were the result."

In 1980 is seems, those abilities attracted the attention of local TV and made takshow host Joel Martin, who charas he had no personal instance in psychia phenomona as the time. George began telling me defails of Ingligation gang, international obcidi my Chihodas Jewish, galandiathai That Ne ousid no have known. Martin says He related how my ex-wite deat he named names (was standard)

Antideos todo became a operant guest in March a fiber and ber on he Viscon University of the Company University of the Company Description of the Internet people - in the studie and people - in the studie and there volume of the Internet and Entry Internet file and Company Internet file and Company Internet Internet on being instantion and the Company Internet Internet on being instantion and the Internet on the Description of the Company Internet on the Internet on the Description of the Company Internet on the Internet on the Internet on the Internet on the Description of the Company Internet on the Internet on t

Paul Kurtz head of the Committee for the Scientific Investigation of calente as the Peranormal clovent a great "These are minely subjective reports uncombionised by mateparticles observes, Kurtz says: "For all we know here could be half schedores or contraved lank takes

Anderson himsell says "I don't come with a guarantae lithmit those who have parened on communicate with a radio or electrical type agrist and i out an electricate

-- Sherry Baker

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- CREED DATAGE

The dying are stowly being ocked away hom us and inspired up into death that sternet place.

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The test issue contents contributions from half a depen academics and other UFO researchers. Antoles booth on hypotoc ingenesion and the prostability of restaitemativitä intelligence. Thereis even a noundtable on the which alters interactions.

Swardski goel s to attract submassoris from members of the "immable college of academics: those who are obtained in UEDs has need assumed balances the proper scholarly toos into such controvensil askins. With this in mind. Swerds is often ing a double-blind doublemiened pourse that set accommodate all ports of view as long as they are

measured and disciplined This would mean says Swords that if archakepto the Klass wore able to write to our standards his wok world be welcome.

A relative newconter to the UFO hold: Swortds says that it is aware for her to accept opposing views than for some of the Lid knews who have a greater enclosed approximation to the subject

to program the suger "I must hear hom all sides

The first association of the pourted sets for \$15 and own be ordered from the J. Allen Hynex Denter for UFO Studies 2457 West Paterson Avenue Choose R. 80559

-Paul McCartry



# ANTIMATTER



CORPORTE

The time government of the source of the source of the theory of the the theory of the theory of the theory of the

a packed platform back supported from the frame of an open gliochesic dome. Four species hang above the person lying on the platform and four are located Locker Freihe annahmen connen implysical vondors maar interphysical vondors motor interphysical vondors motor frei feiter freieringen motor An operatio commés nor maar pahara may in cude anything frei Renau to Beethowing frei Renau to Gesetti dicke conpoto des physics exastemes and how payors exastemes and how payors exastemes and how concentral.

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Parick Hungha

#### COOKING ALLOY

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Wearing instatoy wale Upp Decisional David Shoreman II asked over and lowered mysel rete the shuft. These aux the feeting of ancient au all security which decisional he tong as smoothed in a white platter with no inscriptensis or decisional. Scan hing the chambor Sklasman ang the chambor Sklasman are the marmor (Mig on her side looking in the direction of the Great Pyramid of Khuhu "When I saw this face says Silverman, it put me back in time."

The passage of 4.400 yours four work of the pass four work of the passage of a first energy barrow rank of the passage of the

Egyptologial David (FConnor is optioague of Stwinmans at the University of Panneykansa, rates the new indi most impreserve. This matmity, ha says, may be the one that lucks most like the person harset.

-Joan Greanberg



# AUTISMATTER

#### A CONTRACTOR OF THE OWNER.

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have of a contre of top water The water hardness levels of both Jerome reports

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my devolvers or he would have gotten exact results " responds Valker who humbs he notes all Jaromelia placabo hypothoss "I have a couple of techniques that stockulely totally compassivy alternatis heliet in observos

Usersme caultions that the read to crystal power should be biftcoarded with danger tights. "Bu cont want to encourage better," he says i'm something that decent want "---base Coverbers." THE PARTY OF THE PARTY

It all atarted on February IC with a call to polico in the my town of Fyfle Aktiente. The caller reported a strange hovering UFO with throo hovering UFO with throo

My assistant and I were on our way to the reactionts when we spotted the depect' asys Tyth police chell Chortes Gamany. We tollowed atter is disappearto. Then we got a racio caltest we got a racio caltest we got a racio caltest and i then right verwait, and i then right verwait. Earner was inspired to object as a offert, oval ahaped orall with three whith lights flumination the underside and rows of ted, green and blue lights fluidhing around the cown or head.

Councy the lockwhightee weaters the town which had outy 1400 reactions was inveded by thousands of scinists hopping to galittipite what many thought might be ablen visions

We aren't accustored to having our population inpleowengift" anys Carmany, but everybody was trol noe and we obth Thew many patients accosting to patient accost patient accost patient accost patient accost patient accost patient patient

Later Nakawa shake or occor of the Alabama Chapter of the Alabama Lingo Nakawok Lings there is a hotory of Lingo applinger in the areas of Fylia with investigated numerous sighing regorts the time large Baland "and Induction same could be explained away as notiunal phenomeno, we do have explained performant unregion applications."

Phope A Nates, a UKO segment for the Committee for the Science of the Nationance has been as the Science of the Science has 30 years of investigation has a science of the PHOENIX

CONTINUED FROM PAGE 55

to estend the democratic decrime of lanness to all Americans, the legal system has produced AIDS related legislation and precedent-setting count nulnegs that strengthen or indisize anticiscommation laws and even expand our idea of what constituties a lamity.

Cities and counters across the country have followed Los Angelesis liese and ocopied seniar insauras. These entinances last much of the theoretical fearnwork that shaped the Americans with Disabilities Act (ADA).

The ADA encode twoes out right provides that a second seco

The closefully community of course and lobboat for the legislation to 20 years. WDS comanity don't deministrative logiuidans, and it cert them is done angle memory of Congress tervition-ADS was been decaying batteriney for the Dasafetty Rights, Education and Delemas Fund Tax the ADS toops were a wtail part of the coefficient.

Boh Tom Shendan, director of public policy at the ADS Action Councel and an ADS lobbyet, and Nan Hunler, director of the American Chill Lubertee Uncome National ADS Project, agree Eventually the ADA would have been passed with the color. out the ADS people onboard." Stendan says: "But ADS helped to frame the un gency of the issue."

ADS-related court cases have also of vigot processing the recognism most distribution units, in a second level this most processing the recognism most court and the second level the most second level to a second level at most network and the second level at most network and the second level at the second level to any second level at the second level the second level the number of conditional tests that the court level to a second level the second level the number of conditional between the parave could level the second level the second level the could level the second level the second level the could level the second level the second level the could level the second level the second level and the second level the second level to any participation. Here mays

A few crises including San Francisco and Madison, Weconsin mareover have adopted domestic partnership orde

More young Americans have diver to AIDS than were killed in Vietnam Juat as the nightly news sensitized us to the hornors of war, AIDS will transform our attitude toward death 9

happen The provisions wells, but likely typosally manufacte but it insu unrestand popular band the but insu unrestand popular band that a signal tambit part mentation and the para muscipal ansi playees each partner is entilled to band maximum Rasa allow the other is not insummer Rasa allow the other is not insummer Rasa allow the other is not insummer Rasa and any instances and maximum and and the other is not insumer and the para the stand maximum result in the stand the instances insugares the band that the stand instances and the stand instances and the band that the stand that the stand instances and the band that the stand that the stand instances and the band that the stand that the stand instances and the band that the stand that the stand instances and the stand that the stand that the stand instances and the stand that the stand that the stand instances and the stand that the stand that the stand instances and the stand that the stand that the stand that the stand instances and stand that the stand that tha

ACG has also forced many employers of empty or allow here composed policies of period and the exception of a comployer conflormating. Johnson 6. Johnson, Devenor, Dereveno, Terrer, 188, et al. Canada Mattor, as well as Garrant Madda, Dinn's parent company, lake endonned guiderines to indepart the premployeer, or dust shows enclosed and ACG. Banks of Amenca employees the ACG. Banks of Amenca department to arrange adequate health part coverage

And a portex' in the area of ADS programs, Lew-Strause and Company has developed communicative employee ADS training and education, provided cake-makingment assistance awell as coverage to hospice and home hoshin came and offend flexible hours to employees with ADS.

Autorities of compares have deviced ways to main treasonable accommoasses for employees with ADS A Nder, Bell subjective repairpoints are deviced and the second second second here when they was acked to contrast to here when they was acked to contrast to the device and the second second second provide product a made to estable the to contrast to second second the product product deviced in an accord the product product deviced in a more they need to second second second second the product product deviced and the asses to start with a Contrastan official with the Contrasttation that the deviced second second the product and the the contrasttion of the product and the second second testing the the the product and the second second testing the the testing testing the second second second testing the testing testing the testing testing the testing the testing testing testing the testing testing testing testing the testing the testing test

The stance of such orsposators task an anoil to reach for hardness of other companies that are just starting to grapple with the brown problem of ACDs in the workplace. Whether the concern's gamume or rooted in each end of the start insignation points that the ADS epidemic time problem to the import to graphic the detailable in the workplace And the tod determine and the the tod the black

There have been report epidemics in this operative braine writes there analpos, and as the start of this centry, bulowne pique, Public reaction to ADS frowner has been baked by forg-strinding bases against the working, the exaptsy of whom have been region, while many dense have been relax-more from the string. But in the world and the energy is not withdate properties it is a write.

In the transit of human sequence to the crise control who have to be hard work to take the control who have to be not the transit of the transit of the transit processory of the transit of the transit recent product the transit of the transit transition of the transition of the transition transition of the transition transition of the transition transition of the transition transitio

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or in-less By comparing the figures with statistics on household composition in the Denotic population during the same year. Dely and Welern conclusies that articing contact tanks apoultics and other nonblood robules were 11 times more likely to be also than bloodin within such dutated statistics have not been compiled to other and have and been compiled states in Miern and Philadeghis port to ambit conclusions, here year.

As they read through the files they now liced's activity patient. While most make killes had munitive ther approves after accurring here of laucking or disearction most upman size they hubbrock in sefdelense and rawly out of parking. The hell held no lucy lises a woman scormed uchs a is store. Day episities. "If just decent, hoppon, But the inverse had open at the time. Men are the packos so:

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Wenners makes to madeing the deninervery different according table and Wisco Broggaphic studies of some 00 outputs indicate the testing without scance or social support to child rearring is locking. Such dels eith rearrent Classi dian until for the sector exert Classi dian until for the sector exert Classi mathema in the sector exert Classi and the testing of the sector exert Classi and the testing of the sector exert Classi mathema classification of the sector exert all before bot they committed more than built of the mathematic fields.

While obtails in likely to concruit for many years Day and Wilson Huw at here identified important risk factors for temps horncole, ense that could and isobrail achieves and others. Typure vecking for a chief webser agency, to recomple, and you've got an excessive casehad that bandow who accurately a closer eye on the streachief. When conclusion QQ



YOU CAN TELL the holidays are here when our tree trimming committee gcts busy in the Visitor's Center.

We hope you enjoy the Christmas season this year more than any you can remember. And that Jack Daniel's oldrime Tennessee Whiskey is one of the reasons why. Merry Christmas!

SMOOTH SIPPIN' TENNESSEE WHISKEY

Terminan Witching + 40-425 stochal by solares (RO-64 prod) + Remind and Tarting by Jack Inered Registers tent Register Proof Page 11 to calibrate Page 11 Stochases 11 Stocha



Now the magazine of the future can be odd for the future Strate your issue of CMM in a new Castom Source I Ibary Coarter out of teack simulated teacher in the built to bet out if will keep 2 these in write coalition indefinities; the some is enhoused with the gast CMM logo indefinition reach outthere is a gast investite for

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#### STATEMENT OF OWNERSHIP

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#### INTERVIEW

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Oney Why is isochol source the country's number one drug problem?

Bohater, American society is very immative With on init treatment of Data ger Gatta gat the backs? It may be an demic in a captaset system that we tand to demic on our less and contributes barry out Data set management of the registre paties and and the capter devic ing the backs and an accession contriing or backs of an accession contriing or backs of an accession control out registrements wing them to bein produced on a set which of thomas Bet increated the out of thomas Set

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You change behavior in a Judeo-Oversen society by deglemonization and mid repression Look at population smokIng Trad's whet our druk driving laws do The exception of alcoholism to a disease vias a mapt step in the direction of his program and the problems. Receipt assess backgrown a lagely lower blood alcohol level than they did in the early lightles. In the formase algoholism containing to be the number and dup probtering to be the number and dup probmin the coming millentawa.

Denvi: What sbaut Alcoholos Anonymous (AA) or the Batty Ford Clinic or the many other treatment centers? How well do they work?

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But believe that up to twenty-leve parcent of all alcohol problems may some day be aughted by genetic fectors. Many ternies have gone from generation tents generation minister gif the backgood beggage of accident. But the legacy desert freecessarily have to be generic if even be based on finologi boor family.



paterning in a disruptive atmosphere, a weakened moral network

Ormir Will it ever be possible to erade

Behavior, Yea and no Revenember that with isochrainer web enty laking about sever present of the population. The bigs per social or is not from alcoholism buy periodic abuse of alcohol and other allogin. Tealing the populational part of alcoholem is our best chance for enable centry the protection in the short nur. We can reduce the risk by Budding a citize with a before some of individual responability whose alcohol use of individual responability whose alcohol use of individual responability teacts at the solution of the short of the solution of individual respon-

About appropriate use of alcohol among acluts. That is whiat prevantoris all about

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One: Heen's you been consulting on the development of such a product?

Scheeler, I'm a scientific consultant with 21st Century Pharmaceuticala, a compary here in Minneepole, Tithes a patient on a produkt oxided Arcosola har e much site what live electriced 18 in this à fully, is a unexversion of the charcosol skirty used in south poermaps. Alcosola har an accessing carbon explicit hat acts as a partier in the intrained. What the fast stage of china lives, it looks promising 18 isopares to aller charanoolity the blood alcosola with a consellution through the blood alcosola with a consellution through an blood aldensities of the stage of the blood alblood aldensities of the stage of the blood alblood alblood alblood alblood alsellution the stage of the blood alblood alblood alsellution the stage of the stage of the blood alsellution the stage of the sta

We are taking an Alce in Wondertend vew now but I think we can get close to blocking the physical consequences of slochol abuse with a product that would abapt the toor, substances challed by affanol theoust save your five and panBut again this is a futuretic deal and we need stevilizinity changes in how we deal with the problems of addretcer. I revision sophisticated charmshy enabling us to block or reduce some of the effects that are very costly to individuals. commantee, and secret jub a whole

The dag task on Alcosofs are under way now in Seas, and heyels looking good, We need to test humans at relations have been as the same sease of the purchase spit werying in social werks guadenias the prohibit or litem teleng humans up to verying in social werks down list as about the seasch for the thsingpat marker of alcoho consumption entry the sitembalan.

The schaeter Were interested in detect any immubilities whether as individual has been driving buting the pion week, martiths or year martities were as a discount of the see in persons driving able to see in the set of the section of center of the set of the section of the section of the set of the section of the section of the set of the section of the section of the set of the section of the section of the set of the section of the section of the set of the section of the section of the set of the section of the section of the set of the section of the section of the set of the section of the section of the set of the section of the section of the set of the section of the section of the set of the section of the section of the set of the section of the section of the set of the section of the section of the set of the section of the section of the set of the section of the section of the set of the section of the section of the set of the section of

We are not trying to develop bolism per set. There are numer out gross blood based mesurements available, and athough per haps useful for vertying stochoter in some people who streeption have a problem.

creasibut shi alkaw you to prigor the micetraining effects it would require of course that we develop a whole cultural value or gratem accurd it Derive But would fitthat open a Pendoras to us of the Veloci Waters to fitted of a mice

box of trouble? Without the threat of a hangover, what is to app in parison from gating deute overy night? Doosn't this encourtage addiction in skothel?

Scheeler, high recovery in life alloch un is cause an whice all demands for populapromoting the use of such a product. Shuld people sixius tawa to authar the duration of the sector of overconsump toon populating beets, welfore to authar the in a pool of unree the fault addor' if this product, kept you, from raceiving those messages, it would not be a pool idea. They have what we think are screen (state have They depend on her damage for one firmy and these ideality labeling and many screen screen screen screen screen in account, not be well which all about make or does-valued mapping, or have a many screen screen screen screen screen booting for a marker covering the cortinate in account, not be well and the screen booting for a marker covering the cortintian manufacture of the screen screen in account of the screen screen screen and screen screen screen screen screen screen these who dirk in massing is a screen screen screen been charmed identifiations upoblisms

The privicipal investigator, boohamist John Belcher also at the University of Minnesdia, has studied ways of detoct



ing risks in both smokers and people in preserv or securydary smbks situations such as anglenars. With electric technologies looking at two different metabolic pethways. One is the catalone pathway where welch looking the breakdown of the offerend molecule into its vancual metabolic offers, pathocally apediation/risk

In the other nonsuckine polynewy wells following the trip and of the leave and aludying dispetition in chimal studling and the leave and the leave and the polyne provide the leave and the leave gate chimalography learting as well anywrigh the social of a polynemy to add chimal dispetitions of context many and chimal dispetitions of context many and chimal dispetitions of context many and the leave and the leave the leave and the leave and the leave the leave the leave and the leave the leave the dispetition of the leave the leave in to contenting. New well reaching has conting up or well monitor through leave context put or well be leaved.

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Onni. Granis for alcohol related studies are pieróful. Have times charged?

Behavior two The National Academian in work devolution of Academian in work and the measurement And Lie eleval annumber of proposals for wanking a such through their work in the series annumber of protocol and the series of the series of the source of the series of the series of the source of the series of the series of the series work in the series of the series of the series work in the series of the se Omer. What do you hope to achieve by your work?

Scheller: Like my des of her hogsallag souriest where a community gets the ratellinger/burreases together in-offen growingste her gen red of volkney standards. A rescher of communities are soad scentes will one have here together soad scentes will one have here together geochy and igate Alos. Thoge note soad scentes will one have here together geochy and igate together and offen geochy and igate together and offen page studies. Unless you're dam your shave of here go of you can't als he raft a usether.

Grev Do you think therete of alcohol will change in the next few years?

Scheller Right now work hendol for a contraution of two-Photoletor I there were going to continue to severing to the regist regarding alcohol controle, because the governing image a solid of a must be cateded in the large run though must be an external in the large run though these to be a indexing in the large run though these to be a indexing to the large run though these to be a indexing to the large run though these to be a indexing and well see parts consumption go back with Sub the Vet capacitorization of the large run though these to be a indexing to the large run though the analysis of the large run though the analysis of the large run though the analysis of the large run though the set of the indexing the set of the large run though the set of the index to area.

One: Bair centres hare concepted you, about the observed they emissionlenvinwhat centre or you have for lutane bair? Behades I would have exits that means that the observe serve. The set is demost memorial is house that go with the bair observed set in the set is demost memorial is house. The general set the bair of the set is a set of the they are the set of the set of the set of your it them theread to existing to you when you have made it can then the them and the set of the set that the set of the set of the set of the set of the set method of the set of the set that the set method of the set of the set of the set method.

Orer Will se always have bars?

Schaeter, in the late Seventies I was give Qn a day off I headed for a bar, where I mot two cases who said they had a tilth George Lucas and Mark Hamil, and they asked me if I wonted to come to then and it was fantastic One scene that both and me a bit Pouch was the partner by all those wand creatures 1 asked Lar cas who is anti-poologically instead about it He savi ha helieveni these a wave going to be a place where ideas are brokened. And its more likely going freywart Although I around with time? siverys going to be a place to go to acheve altered starts-the third place ing altered states now and then DO



COMTRUED FROM Profit 5

computer. The garity's monitor gives a three-dimensional view of the brain at work. Doctors can manyipulate the poture to examine different close success Other, studies takes as or server hours, spread out over serveral assessms.

Suffering and his colleague (E) Daves berth have collected MSC means the table at UCL Afor the pate say years. They have been approximately the the pate the means the same the pate the pate his sufficient and the same the pate the histopic and are new workshold the histopic and are new workshold the histopic and are new workshold the histopic and the patent data histopic and the patent data and the patent data and the paped with which imposited the data are ned the and the patent data and the paped data which imposited the data are ned to accord to be to indiversite and indirected

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Benzginki investiena zim korkig on hep-kerpentak organis of belan Boszar offe protoche ker of belan contenen avy into participation il ad when borngotie mesoner repass har convesta SUICII affra Kach a scorröst at IMA's Nortoon Hegin ker trais. Un angot ortege for programs wil incol the offensy for programs will not all the forego for programs will not all the forego for programs will avoid the forego for programs will avoid the offensy for programs will be the start of the offension cations that weren't possible to for the starting as method you come to all



explains. Here's another way to look at it. There's singher probability matths earth will be hit by a 1969-FC-size object that that any individual will be killed by a lornado, administ at one chance in 50,000.

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The improvances term a new may be the one in these small asseed the damage caused by an advantaments lief is improve on these measures in the size improve one of these measures in the improvement of the improvement size improvement of the improvement size improvement of the improvement of the incoment of the improvement of the incoment of the improvement operation over a less termination for the improvement of the concernent of the improvement operating of the incoment of the improvement of the incoment of the improvement of the imported in structure well.

Given the potential for desaster it might behoove reports to invest more telescope true in identifying the mysed unknown objects that heart the right skeps Palomar-that allocates time to asteroid Partners, It would take at legal 20 teleyears. Chaoman ostimates to discover Chapman says, "we could probably pricould in theory launch a rocket with a nuclear device on # to meet the object and blow it into another orbit, one that would may the earth But it would take for the social to get to the asteroid" it blowing up an approaching asteroid would do little good. The shattered hulk would send a cascade of smaller but shill

dangerous, rocks rilo our atmosphere

To date them have been no recorded data tip on advectory or metal much a free progie have been injured by the automatin of November 30, 1554 a woman in Systexups. Avalants, east deepeng on ter cauch when a melanite course beating being the sum of the much beat and the sum of the in the Newtopian's around the course in the Newtopian's around the course to one of the avalants to use to use the one of the avalants to use to use the one of the avalants to use to use the one of the avalants to use to use the one of the avalants to use to use the one of the avalants to use to use to use the one of the avalants to use to use the sum of the one of the avalants to use to use the sum of the sum of the avalants to use to use the sum of the su

Iso Haikday, an autonomer at the Hardseng leading of Autonyasa in Di, Isova has calculated that about 5 500 damage Haikday estimates that onyone many haikday estimates that onyone person were 700 years will be hit by a mateenate in North Amarca, and beuage most of these hits will be hit by a haiden to be in the hits of the by ble scale interes for space 1 and get hit by a this constroke will.

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Bendes mesones, assessor and community and a similar two dismanimum data, machy exceptions and a similar data, machy exceptions that the similar data and tably heat heys have acgreed for the common data may exceed that the common data may exceed and percent baby special with viscous baby the hews in the percent percent baby special with viscous percent baby special baby and percent baby and percent percent memory and percent percent memory and percent percent

In the end the waterso of spoor, which reserves to periodial by each water and costant moment. Source or black the momerball and and we may see a fairt light coming toward is a casting a shadow or the toxing to advantion DD

# ARTS

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In the late Seventes, Krause returned to action and a mendia accolution in conalive anti, henrig served an internation in bioaccountics, the study of the relationship between organisms and their sounds With that Scientific background, the began working with the California Accelery of Sciences and other organiszations and his prepared soundback

He recognized his muscal rathe after a Greenpeers benefit concern in 1961 Wertig to iny sometime, drivert i he had allocanosity securited what end drum sounds by hand, which others would like hows compaction Thermal West the twomission What Right After its performance What Right After its performance was upstations. If show their what my voce would be "Rouse tests

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In the service way that acces by to adcate vectors and speek concern tor wild animate and natural hebrats. Knowe hopes he music will enighten as well as amentan his lateners. "Wy service is that this is the only way our lack are ever going to hear this maternal. Declares the allo male ason concerns to the the animate male ason concerns to the the animate male ason concerns to the the animate and the service animate in the service animate service animate in the service service service in the service service service in the service service in

Despite Kname seeming pearanter towers the downloss apporton (his profits to The Nature Consorvatory a public interest group doctorated to kongenig will places well "Iw also encouraged The Assiste Corresping and Rykotok to become part of the Constances's efforts and they have the usage "In a states the animals are the states on these record models. I went to left that in dong comting the states on the states on the states on these tables.
### COMMUNIC/ATIONS

CONTINUED FROM Price 12

### Unscientific Analysis

When adults tryls figure out how to mohvite and educate chicken they usually correr to the same conclusion that the Educational Teating Service did "Academic performance can be represent adults" disers and parents demand more from aluers and math be what's pushing studemts ward?

Jason Baker Sanior Resro High School Fileme, CA

It is no worder that hids have no miteres in accrete Public exhaps are provided with gradely inadequals necurcal for sources public for a course you may failed balls pass noting mean have balls and the pass noting mean balls course in source as equal to frace gamed in part. Two leads of actives contened to the address to active an active or the address to course of the pass of the address to any active the source of the address of the top the pre-presentation ready to make an addresson.

Mary Holen Clark (age throsen) Enolowood, NJ

### Finding the Natural High

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> Jan Thompson Now York

What is Wonderful World This Could Be A barrish of red mores to Cathy Sponcer for her excellent Telefy Wanted An Action at a Caucie to a Datter Earth (September 1980). Omit's supplementations are who save the planet by changing the way we are resources, changins such of us can institue new which watering for experts to finally stop studying the problems and do something

Sebastopol CA

### Es No Small World Alter Al

In your ordenread commensate Septembra 1986 Septembra 1987 Septembra 1987 Septembra 1986 Septembra 1986 Septembra 1986 Septembra 1986 Septembra 1987 Septe

> Ben Zuckerman Los Angeles

Editori Nate We did consider including population in our declassion of the most presengenversionererfail result facing our planet. Since National Geographic had incently presented a Tweetingh declaration of the assue however we optical to decide our pages to topics that had been less publication.



# GAMES

By Scot Morris

scott km whose vessel waterplay called Inversions appeared for the first time in this obtained here may be come up with two mer pairs bed are guissenteed to the year can't the relative field devined on them while her was designing a computer data that allow romatilate to manipulate water and does—on they can create the does—on they can create the own inversions.

In the helphagain puzzles, you askize acits perificial (sang the computers, mouse) ratios 600° or 190° (ankin reflect A, then copy the result in one of the onphy segments. In the paper-and-thi, versions perificial must the bank way to sain which these felders will look four effective is to phosecopy the page and helid is up to the light to thet you can two the lefter shapes from the back.

The two puzzles at right each state which hall an aphabet—just 13 letters The chailenge Capy anch lister aroua and by shaving if either notate or reflect if to the one of the same squares in the same hall phase. If hithe end, each 26 letter alphates in make up of two oppose each of the concert 21-bitter forms

For everyple in the test quiz (Halphabet A) you con use the W to make either an E or an M but not both Some symbols must be Ripped to bit A p can be ro taled 180° to make aid its minor imagis can form a for if everyple in 80° to make for its deather is a

Attough the two Halpha bets are reparate puzzles tas OMNI



Kenimadu Exem Compament oach other How did he do £7 Answers ap rativ os patos 145

The completed diff. Enterformer, & Kassen by tenterformer, & Kassen by tenterformer, & Kassen by tenterformer, and the tenterformer, and tenter

### COD MAN OUT

The best games all simple grough to learn immediately and complex arough to keep you interinted indefinitely. ToNacional where integers as too productable for every possible opening move by K thates a suply by O that will lake a ter. The oddevers genes and up on a ter dance opening the easily alement, but you can play handwate of timus whitour discovering sumline strategies for writing or formal of the set of the set of the formal of the set of the set of the formal of the set of the

to pay, oraw a to-techter board then write the cigits 1 through 9 separated into rows of odd and even numbers as balow

#

charge of the digits 1.3 5,7 and 9, the other player "Even gets 2,4.6 and 8 Odd goes first Players alternate insorting one anther is a new more cell Numbers may be used only once (players cross them once (players cross them once (players murbes) are placed both players have access to them within the grad. The object file the her, player to complete a served these numbers proceeding within a proceeding on the ST The tissen of a pame chooses whether to be Odd chooses whether to be Odd

Bonald L. Gratiam in vented odd-even in 1956. New adjunct disector for research at AT&T Bell Labs Carters in Stelod in The Guervess Book of Waved Records far the eponymous Centers in Namber—the isigged number even used in a mathematical prool

In set a line matches you'll see the difficulty of determining a best play Does the perfieldly played game and in a wri for Odd, a wri for Even or a to? I did a lot of penol callosia lons tracking out various strategies. General foid me



It thatly convenient inysett the one sate barrely had a win but all my analyse was done by hand—it look hundrists of pages—eo 1 hundrists of pages—eo 1

### **GRVHVM CRACKER**

Grahams game was thely cracked by a computer his year. George Markowsky, professor of computer sectors at the University of Mano at Isoked a with two program ming languages. Fascal and APL, Markowsky nert, mo his analyse, published horo for the first ama

The lost step is analyzing free genes Find the number of board configurations frets are poosible for exemptin introlations. Xian open in any of new possible sources because one can indiate the gold, only three distinctly different openings ready road. It as contrart segare to a matchale sources to a second contrart segare to a matchale sources of the center assume. Odd care places uny of fee outplaces at any of fee. the dree descriptions for 15 possible openings But every game has a numeroal minor inlight games that start with 7 are instimitional with games that start with 9. Opening with a 3 is equivalent to

A gaine that has the lest three moves 1–8–3 also has an exact telection 9–3–7. Therefore Odd has only free dethody different runchers (1,3) and 5) and three dethody difteref sources. The reduce the number of possible openings to nine.

Mathiowskijk s program prunist til ni 256 595 concessible arangements down to a mom maraupaable (hal) 5% 856 detenet onos A portectil pistyed game it kume od dotaset nave a wenning distategy And iarouming til 1% po soleke following probtems (Aroums apport on plage 1%) operang aquaree joor er mdoude conten) only one leads to a forcod win for Oad. Which hui? 2. Initie three following grids, determine which es he basic operang for Oad and which is the worst.



S Below to game A after free moves Even has 18 possible moves the 2 6 or 8 in any of the sx open squares Severteen of these moves ist Odd with on the read turn What is Events addet move?

4 In gene 8 Odd is to move Place any of three numbers—3, 5 or 7 in any of five squares Of the 15 possible moves on the magnity lead to lea a wen for Even (b) a loss for Even or (c) a te?



There is no intuitive islating to the game, so it remains challwriging. Even thown for Odd in svery poeten it as atmost impolapie for any human to know what their move is without within trying it or looking to Markowskie a analyses.

There are other aup general subsets on the game. For exempts used that Markewsky analyzed using offleared colors and here ways to win Ray as before but with the odd numbers on the docunters. The object Complete either a line of thiss that adds up to 30 or one thet here have coanters of this water one.

Other variabors haven to been extravoly analyzed For example no one knows how the game would differ if the observed sam wore 30 or 54. What the nambees used work 2 thought and Even went huf? And Greftemis latest version Put the catholistics on calcils shuffle and deal sandomly. One player gales from the base this other gale four The person with two oppers.

leads to a whole range of unexplored games with different statiogies for each possible deal

The level of complexity for odd-even as greater ther any noughts-and excesses obver ever impraned DO

# VIDEO SCANS

# GAMES

We have no spatights no imposing statistic—hall even a statuate But with dom's respit substituting for individual glianear we after our choices for the best video and computer gamas of 1269. The ame

 Bet viseo adapteen of an arctade girms. Although Nitrandia varian of Douàle Dregon vas a moneter his—ant a solid adaptation of the arcade organia— Segas Double Dragon capture. The two player that of the game it is also closer to the load and feel of the organia

Bet complex adaptation
Bet complex adapt



of light Francesco, levere set and the Chronic Chronic Chronic Chronic Theorem Chronic Chronic Chronic Theorem Chronic Chronic Chronic Street Chronic Chronic Chronic Territory, Chronic Chronic Territory, Chronic Chronic Territory, Chronic Bith regards data signal comparisons with regards to and project crasting states (Linka State or Deriver tags) arter Million Deriver tags of technigeness and the same cell table and geness with the proof to detail response and databack departs of the same signal states of t

the vertices building and not computers Spectrum Victoryum Tikka. Biothom Arts Zang Golf, and Ram. Arts Zang Golf, and Ram. Arts Zang Golf, and Ram. Artspace Aran STI, detrictor Historicas Software • Bed game system: No. Arespect here. The accord and minutes of the NES are boot minutes of the NES are

# THE APPELLATION TRAIL

# COMPETITION

**By Scot Mortis** 

visa a form of savagoe or May 1989? What WAs supposed to one percentrative of may not be what I conjurve up for another To us here at chelerge The competition's rules called same name Here was our example Dar Farrous Arros Ibs California Basins, Microsofa Fats, Joe McCarthy Charles

favily obvious A custies a bed, B. filed cockies; and so on

Case SF-4000 Digital Dery (\$119 value Next Book of Ones Garnas (New Arrist-

singers, both actresses), or not readily Redford who starred in The Candidate)

COANTS DECK WANNES

George Bush, John Tower, Foster Brooks Ocean Grace Sick Olive Dvl. Witter

-Jana Fernatermaker, Lafavette Ih-

Havey VIII. Peter Noonel Gary Cooper Grace Kelly Walls Smoson Edward VII. Dake Filmaton, Heater Pricton. -Manone Black, Farmington, NM

Richard Nexon Chubby Checker(s) Bishop, Tammy Fayo Bakker Charles Colson, Richard Nixon

-Bob Shelton Berranduam Al

Daved Dopperfield, Arth/ Dodger Jackie Holiman the Beatles Latin, Pasputn -Patricia Propost Worder Lake, L

Robe Rufs, Adam West, Roben Hood Robe Ruft - Am Danc, Seattle

Pazzo, Dustro Herliman, Torr Quase Darson McGasin, Mary Telor Mooro, Grant -Donnal, Schmatt Novi M



Sents Cinus, Budol Numera Métrol Baryshnikov Jussica Lango Sam

-Nancy Hentzen, Kareses City, MQ

Angel Corden, Gabriel Captain Honato the Prince of Wales, Lord Greystoka, Targan Jock Mahoney Angel Cordeto -Mass Kines States Island, Nr.

Stot Mome Cel Stevene Salmin Paut-cle Saran Jyn Rakker Jassica Hahn T J Hooky: Jamos T Kirk Jamos Doolsan, Scot Meyes

-K L. Stuart, Prince George, PC

Eddth Phall, Otto Bindsong, Flavorea Notencele John Hut, Durnto, Leonard Nimoy Benamin Spock Baby Shocks -Buth Annone, Berningham Al

Stan Musiai: Candinal Sciellman, Red. -i profia Movo Hanvtown Al

Sandra Day O'Connor, Arohie Bunker Meethead Discar Mayor, Jack West, Batman, Johnny Bench, Sandra

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Abraham Lincoln Ukrates S Goard -Boorr E. Luft Fau Claim W

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Gordon Lightfoot, Carl Lewis Hoagy

chapi A Gowan's list, for example, was nections? contined to science-fiction writers and (Saint Peter, Pete Bost, Peter the Great,

W.C. Handy Leonard Feather, Larry Peter Tchaskovsky, Peter and the Wolf ), and John A. J. Kenn of St Paul 

ceine and groups (Metallics: Iron Marcien, Cindensita Tweated Seater Heart Joan Jett and the Hackbearts Whitestake Po-

5. What is unique about the list of lenda, John Rinolino, Alexander Graham earren? Black Gold, Evice Ebrey, Jet Prai, Count Fleet, Lord Murphy Iron Liege Black Gold

2. What unusual netters win the lef? Maurice RaveilLeVar Burton, Oprah Winfrexhierpo Macs Theda Berni-heb the Arab. Budolf the Bari Nosari Berrieas'

3. What's remarkable about this list? John Dears, Martin Marty, Alan King, Ar-Lews Carpil Laurence Diver Newton after a

Henry Jerres Dean Martn Luther Ken Henry Thomas (Tommy) John Calvin

Some madent sucched esplanetions wours. What are the keys to these con-5 Albert Firstein Mooty Hall

6 Fred Fantstone Andy Griftith Tom

7. Judy Garlend, Diana Ross, Sendra 8 Jack Berroy, the Main brothers, Like

2 In each par of names, the second name is in part the first name spelled horization (Recall over Ocrahilderic)

Allen King Arthur, Dovle Alexander, Pope ichn John Lews, Carol Lawrence, and

4 This is a similar chain in which each name links both to the name before it and 5 Barl Parks is a "scuare erricee."

(Kevin Lahr, Eagen, MN) 6 Flotstone and Gaffith both had best

friends harned Barney, Griffith and Bos-

Supreme (Sara Shrvavier, Yosilard) Mil Christy, San Bernerdon, CA)DO

# GAMES

OMEGA 2000 SERIES

HALPHABET At right and below are letters in Halphabet B are n postors bet A and vice versa

ODD MAN OUT 1 The midsube square guerancees a win

2 Odd whis only by opening with flor midiade square (gsd a) The worst move is 5 to the center (b), which can lead to a

3 Evens only successful strategy is to place 6 in the upper left corner All other moves let Dod whiph the next tum Ocidis only winning response to this is to play 7

4. Of 15 possible moves for Ockl. only shows that if you don't think carefully and chances are often very high of produc-

NOVEMBERS PICTURE PLUZZLES AN month's brandsessor DC



HITACHI

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his motion and send it to the computer The computer their translates the information info a watar image—Weldo. As Whitman waves his hand, Weldo appairs to cocost and menant with the real physical Muppeds is a common space.

Some researchers have gone even lather moling relatively realised anisetons of human body perts. For restance, signals from a rief hand (wearing a sanson if diddiad accessory known as a DataGlove) can drive the animation of a bihand. And agnisis from a risel toot (with a distar 'boot) of lane the animation of a loot distar 'boot) of lane the animation of a loot

Jacot Julia Televice Concept to an entrume Hair and the company CPA Research in Researce CPA Collection and entrume Hair and the company CPA Research in Researce CPA Collection (see Artificial Intelligence Exposition Coll). Annumers are grownshotd as VT engineen-or anyon for bail in Makintow while wearing the Dasibility. After an engineen-or anyon for bail in Makintow while wearing the Dasibility. After a company and the Dasibility of the a company and the Dasibility. After a company and the Dasibility of the a company and the Coll bail more diverse they do bail the company and the four the part way. The parts in the second parts and the company and and the parts and the company and the second parts and the company and the second parts and the company and the second parts a Collect a desame and a poet bench backs a prosver Markov in Markov backs a prosver Markov in Markov with templed (pit brown these desame to be the set of the set of observer muscle) instrumers from the data guide (is depared tegopol) to the temp) operations writely that only tammin for house. These instruments in fact, actor Lanest is photosphy of avertiset in the towardow reported on the set of the temp be an exponents of table. The temperation instruments in table, which and be been and of the set of the temperation instruments in the set of the data by the set operation of the data for bootnets.

 of dollars in cash as the weifer serves exposicono and steek batters—alton the corrector screen

A user with such as instrument would be able to interact with his visual landsdos judia to justical program with the sociated mess Danning high/mounted display that would provide a web held of view the viewer could soch missof socing lithraigh De Kooning landscapes of vibrant color and abstract forms or supervised tocals

Backase of sch versating Larke babevice annahos will not also be the communication tool of the missage HB and the scheme scheme scheme scheme gegebe booky multicle speech and pent are supplemented by synthesis each of pent are supplemented by synthesis each of the scheme scheme scheme scheme being ingruine the scheme scheme picta and a move your might send on picta and a move your might send on ammed in without 5 the HC All the scheme of conversion, from the suchasige of would be unboarded through immution would be unboarded through immution

In fact, though Lanver's predictions have the sound of lantary, wreapers of the amount camera as alwardy in the works. At MIT's Modia Lab, for instance, Y, M, chast Bove is developing a camera that captures and encodes in a computer process between about every obset? If the



ported at. Bove, whose dark har and parkedy checked learners give him the look of a matheexide, describes his lisser devices with painstaking detail. "This can actually be reconstructed in the computer". Once on the computer solver, lanceupse and scenes can be studied born serval ocens of we

A previous hardware to on their way be an end of the previous and the previous and the data and the previous and the previous and the data be gathered with the marge of a soft or data. The sector could the more the host be data. The sector could the previous and the host be and desired in the compares to make an ammeter of his focus or the compares has a sector with the marge of desired be able to more the other and desired hasta. Sector previous thermality to close in the labour of data is the marge to our a shrink the base and more the soft and the data.

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Today Zatzer is machine paramites sphere and parents, cores an outer Scattered wert he screen like soutprice in plate, here generative ranges form a Euclidean heaven to a critic, a comtrain control of the recent paramites had para As the location to agricult, and table to charge base flow. When is corres to a control is place flow. When is corres to a control is place flow. When is corres to a control is cable, or the edge of the place. It services to the scate

Left to rate! the clack would woulde endeasies bit commonitod to this meshwe in a bitaritione designed by Laner and claw. When the given is public on the spotsy image of a hand appears in the ophies wenth weater waggles to singars or makes is fat, the ammand there obtaine each moutin in turn. New your real hand down made the obtained and omount and hand right the computer hand mean your hand here. The omount is the book up a growth the of the of the output factors.

Why is this better than working the keyboard? "Because I'm in there," says graduate student David Summan perfiing at the screen with that, screene clutches the core and thrusts it dut the gree through data space. One might expect the cone to solve down and fall back to ward the plan. But moving at escape velocity it tumbles and over and, patting amelier and smaller until t drappoars.

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# INTELLIGENCE

COMPARE FROM MOR 24

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These erash, probections and seaves (single cavid became standard as 1997, Capacita, seating 1997, Capacita, seating protein applications, seating protein applications protein applications and processors draps. Cast 323, 2000 per seat. Caentati, Life Protecting Systems, Long Teach, CA, (202).



### NIGHT RIDERS

Euto-T-Broke's finishing light la visible o wile away. The unit, which alraps to your over evelog, uses a xenen hulb powered by a AA hottery, H's weetherpreof and weighs 3.3 sectors. Cast 346-93. General Island, MY, Grant Island, MY, Grant Island, MY,

### PEDAL POWER

The Gold Such America set world researds for a human powers of the case of the second for a deah (200 meteor) and the case-hour record of 48.33 miles. At Utah's Beenaville Bolt Fields a two-man variant die Bold math

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America

### UPWARD MOBILITY

Startine (right) will be aff like a hallogtur ead fy like at place. To exhease lift, and the second of face in wraps during horizontal about remove, likes and face in about remove, likes and about remove, remove, about remove, remove, about remove, remove, about remove, remove algorithm with light fallogaters. Canhart Wales Algorithm, Heasttal, 1720, 485. 1700.

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Under the head of this prototype IAWV (clowe) is a weathted internet combustion anging their haves wheatees hydrogen instead of early genetics, is its brunk its on insoluted truck that steres the hydrogen is liquid form. Context: Robort Mithia Lake, New Jensey; [207] Lake, New Jensey; [207]





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Dealer inquiries unrited



# LAST WORD

By Brant Butterworth

Since everyone's midnift is going to look like Markon Brando's, we'll be able to eat whitelever we warit: Sno: Caps to start, devil's-food cake as a main course, Mrs. The been investing workfork all control and investing the second second

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