SPECIAL ANNIVERSARY ISSUE

LOVE, WORK, & PLAY IN THE 21ST CENTURY

FEATURING: RONALD READAN, GERARD O'NEILL, RAY BRADBURY, JOHN NAISBITT, AND STANLEY MILGRAM





ICC / NO I

EDITOR IN CHIEF & DESIGN DIRECTOR- BOB GUCCIONE

PRESIDENT KATHY KEETON EDITOR GURNEY WILLIAMS II GRAPHICS DIRECTOR FRANK DEVINO MANAGING EDITOR FAUL HILTS

CONTENTS			PAGE
COMMUNICATIONS	Covespondence		14
FORUM	Casiogue		16
EARTH	Environment	Dougina Barr	20
UFE	Borrectoria	Thomas Chraitophor	22
BOOKS	The Arts	Brein McKelman	27
PAINTING	The Arts	Geogory Paul	50
TELEVISION	The Arts	Douglas Stem	52
EXPLORATIONS	Tred	Louise Cooper	56
THE BOOK	Health	Super title	40
ARTIFICIAL INTELLIGENCE	Compages	Alven Tofflar	42
SPACE	Common	Douglas Blarr	66
BREAKTHROUGHS	Technology	Bit Lawren	40
CONTINUUM	Deta Bark		61
LOVE, WORK, AND PLAY IN THE FUST WORD	CONTRACTOR OF A	Kathy Keelon	0
MND	Bahayor	Stanley Migram	34
REAGAN THE WORLD OF 2000	Forecast	Renald Respan	60
THE HIGH LEFE IN SEWCE	Article	Develd K. O'Nell	72
HEIPLAY	Article	Soot Morns	83
JOHN NATHERT	Interview	Anthony Diversidge	109
FUTUPE METROPOLIS	Article	David W Dunksp	193
AN OFFICE THAT RESPONDS TO THE TOXICH	Petril	Langdon Clay	124
THE DEUPING POLL	Reader Survey		132
I SUPPOSE YOU ARE WONDERING WHY WE ARE HERE	Fictor	Pay Biodbury	44
PLASMAS UNDER GLASS	Pictonal	Pete Turner	78
THE VISIONARY	Fiction	Ureola K Le Gom	100
ANTIMATTER	UPOs etc		135
STARS	Astronomy	George Lake	168
PLAG CH PS	Phenomeras	Philip Harrigton	184
GAMES	Diversions	Sect Moms	164
LAST WORD	Humor	John McCarthy	190

θ



The future unitate butters us his the spectrum of the randow may gathering both dark unit here, a solver tools above challenging us is solve the radde of the reactly-basi century. Actal Michel Toteschaft despent this packer with Hel Segel

4 OM



FIRST WORD

By Kathy Keetor

 The twenty-first century may yield a nation of sciencie Wierates unloss we act now to improve Christian and the Detroit of papage adactives operating the Christian and with these processing and them the Christian of the Christian and the spectral of the main important by the Duckament of Christian and the christian and here in the Christian and the Christian and here the Christian and the Christian and here here the Christian and the Christian and here the Christian and the Christian and here the theory of the Christian and the Christian and here where of physician and the Christian and here the second and the Christian and the Christian and the second and the Christian and the Christian and the Christian and the second and the Christian and the Christian and the Christian and the second and the Christian a

With the investion of angineer Charles to Wellow it the law prove of cases to softer space in a new coll has begun. Wolkers is an informed in Alkoberney Douglas, and the presence showed have a law of the previous information and the previous information of the the previous information of the the previous information of the previous information of the previous information of previous infor

This Decremp visions with other period, other, one with the lattery management reserves the decide integrate the decides of the APGR, program. Decide statement of a 335 boot color panel, the benerphasis of one statement of the statement of the statement atterners. This is is and adaptased the benerp atterners the statement of the statement of the transformer on which it records with the form the plantic on which it records with the other benerphase of the statement of the "commenter provide integration in the statement to which the state is adaptased to desire at the country state in plantic of the statement of the statement which is the color in administration of the statement of the state in administration of the statement is statement which is the statement of the statement of the statement which is the statement of the statement of the statement is which the statement is administration of the statement is statement.

Discountria other explanmack is a device, designed to put/y medicasiy significant blockwritasis. One such phasical an informati that onon refined i could be an important new vlag when have de tareat years But enters to made publy or chasply making for postful to made publy or chasply making for postful an

Uninvestigation and a point single technics begand considerations with region constraints for long. American point and a second beaute the second second second second second register of science and reals educations. Name and the second second second second for realistic sciences, Daniel at the concret. Satz adold site mesocomputer revelations which an extern of science datasets where which an extern of science datasets where which are extern of science datasets where we are visited an elegation.

The addition space is the write the operation of the operation of the space is the space of the

What Cred wile form six years ago, se period and the a simple cleak line on other all weights and the most working of the encelling at the most workings of all human andeoxides.

 Bit is asime that too many Americans still do not understand; Science and lectinology and not separative, risky design local from social progress, they create social progress, and they deserve mashmore wrighted, and they receive.

The side-air regressivation may been weighted to a backwards any single weighted to backwards any single to explore out there are an unit rule of case, weight and play. The recent as a video-energing look a unitarities and out chickness and upong and backwards public magnitudes on societors and do not incentical threat energy as tracked hereafying have models have magnet.

Instructive stores occupiers must of the open that blows users our mere interest program that blows users our mere interest their in the next one tury. Proceeding a store that in the next one tury. Proceeding a store and a comment, and the store is the store and a comment, provide as important in and a comment, provide as important in them that the store and the store tury. When in a lotters to come what care flags when in a lotter is to come from to the store outpoint in spontaneous that in accord in ture and a comment that in accord to an elegation of the registration of the store and the store to except the registration of the store to a registration of the store and the store to account in the registration of the store is also as a store registration of the store is also as a store registration of the store is also as a store registration of the store is also as a store registration of the store is also as a store registration of the store is also as a store registration of the store is also as a store registration of the store is also as a store registration of the store is and the store is a store registration of the store is and the store is an also as a store is a store is a store is a store is and the store is a store registration of the store is a store is

Overpring the issue at the non-intervense interviewing means and of terms in a orderent both at the social windows from a social sector of the social social of the both selection of the social of the head both selection of the social of the head both selection of the social of the

In spite of au prescription operand, free hours work has probate to all spageinty also first gaptering heredom and pasperty Bolence and lacknotagy will gain us the mount to make to all to use them work you must automate and they offic and annut is all other and their officiand with the own chalem and their officiang with the

For the last sex years, Germ has and to don't pert. Our world rais as not some good constropine that aware us but our failure to use the introvector and opportunities now open to use DO

Kenty America is the seconders of Origin

CONTRIBUTORS











mana once asked Sigmund what he thought humans ought to be able to do well Excuring any water

hours a week-providing chet impoing new

Yat when we began trying to impose an about the next millionnum. Exaults venerable ing the changing rob paterns, 'to play'-

elector. In responses to Ottor's questions

we won't have to work hender but we will plans for recreation in the tweety-first

No matter what else tramans ferry into aboard a space colorry dateling Jung 4, may become one of the plusteest fronters

Farth according to John Nastell, surface Naietrif prodicts full employment by 1999 shortages will lead to new concorde south ogy will foster new test between people. starting on page 305 he explains how

salely on the opean floor or provide gravity Marropoks' (page 116) New York Timed joys of the village-for example, the propland streets and crowdod marketplacer-to make temperawis have shuch ros habitable

paper project that, other 10 mmutes of suitance poments More important to Moreal it a fun

offerings as well Ray Bractury's "I Supremy Book Award greas us 'The Visionery (page 100), the hearting story of a sensitive women of the luture DO

K-THY NELTON

CIMINI PUBLICATIONS INTERNATIONAL L

HE DONNOR THOM

even and the second of a field callery the second based of the second base of the second based based on the second base of a fease base of the to use where is the second based of the second based of the second based of the second based of the based of the second based of the second

- N Y 10023-0060 TJ 12129-006 6190. h No 22720

.

Antiperal sectors Faget where is dealer with protage basetier Faget All Dealers is dealer with prcales been interactive here has the test of prsector been financiperation here the test dealer in the Antiperation for theory with the test been and provide baset in the test baseties Art Aster in the set 3. Sectors and the test of

NUMBER

In order VI Control Antenno & Pri Antonio Antonio Interneta de Venezio e Venezio anto a la controla del la controla dela controla del la controla dela control

CIMETITISMO.

4. Under auf Wardtreigt Henre Hannen, Sterner (1996). An eine Anton (1996) and the sterner of the henre hand henre he

CODION EDITION

 V-Wronge Betters Jam Fulse, Jase Our pu Dorspery 131 68 Whodes Cho Streets & Twen till Bereisy Rosanson Over Weiter Den Tiger Phone All Pastace Dri 821 Ares Betterstell ETTERS

COMMUNIC/ATIONS

An Idea Goes Flat

Ken Faulkenberry's solution (Completition Results June 1964) for keeping soda kom geing Nat—equeexing the plastic loctle until there is almost no an left inside ri--well not work.

This assumption is that carbon does in adays in solution longer if them no air to exceed the control in the plants between naturally try to negatinitia alongs thereas it particular them would be use parallel the particular them would be in the parallel that, covering the gasts corner to of splataer more moving the tools.

Flick Norwood Wayne NJ

Ararnid Wartare Revealed

We feel that we have been sensualy maneprosented by an afficie which we ware unable to review triad "Annual Worfors" by Peter Pondinone (Antimation Federaary 1984)

The author whole in the present tenso, although the Animal Behavior Enterprises (AEE) nearish daiseth daisethead took place during the Wathern years of 1966 to 1967 Here are other macourtacles and misstatements

Proj paragraph. Today - augocity replantes 20 paratics of automatine the bebolly of with book She observed in country large a samel sorce whole with a distance repara gene. Actually 4.4 possible with the reporting paratic sector and the work was under welf in replanted in a 300-possible welf in replantes and another the same sector and the secmetal and in replants were counted with the metal-sector and the sector and the sector mild and the law weight counted in an infil and the law weight counted in an infil and the law weight counted in an

Second paragraph. "Baking has been ped by the Defense Deservent is in in new ways to use animatic in land worfamil" Not so. ABE contracted to provide that results concerning behavior of vorticity and results concerning behavior of vorticity and the of specase Animative and the the military.

Thest paragraph. An implication is made

that some of B F Skinner's wortine targettrianed papeons bombed real boats AI no time did we state or imply this

Fourth paragraph "When (the papons) spotbal a signal man and the papons) taggit to branch neerby this changing the heaparray compiliation motions and the paper the paper Architect (belocitors) system was mean to padect medianized outways, however, block taken the paper of the paper heave to be the paper of the paper of the heaven be of the papers backs, not in their demotion.

Hits paragraph " Bully now tomeses the day when share was built to nontry day around the future of the state of the day around the state of the state of the day around the state of the state of the day around the state of the state of the contrast of the state of the state of the day around the state of the state of the day around the state of the state of the day around the state of the state of the day around the state of the state of the day around the state of the state of the day around the state of the state of the day around the state of the state of the state of the day around the state of the state of the state of the day around the state of the state of the state of the day around the state of the state of the state of the day around the state of the state of the state of the state of the day around the state of the state of the state of the state of the day around the state of the state of the state of the state of the day around the state of the state of the state of the state of the day around the state of the state of the state of the state of the day around the state of the state of the state of the state of the day around the state of the st

Perfores more companying to use the execute instrumentary time Managements execute instrumentary time Managements reference to meehand: between add environed intermentary and execution environed intermentary and execution environed interpleters is a cellutioned to environed interpleters in a cellutioned environed interpleters of any execution of between interpleters and any execution of between interpleters and any execution parameters and between any functional parameters and between any functional parameters and between any functional Reindmore and the we conducted our environ based between any function results and between any functional results and between any execution and between any functional and between any execution and any execution and advected our and any execution and advected our and any execution and advected our and advected any execution and advected any execution and advected any execution and advected any execution advected any e

Marian Breland Bulley, Ph.D. Robert E. Bauley Animal Behavior Enterprises. Inc. Hot Spinings. AR

Credit Correction

The photograph accompanying the article Timos Child, by Patrick Terney (August 1964) was taken by Loren Alexander McIntyle Ind Tim Molintyle DO



The Crown Royal Excalibur Sweepstakes

WIN A \$57,000 CUSTOMIZED ROYAL EXCALIBUR

No. It isn't a dream, it can happen to you if you're the Grand Prize winner in the Crown Royal Excalibur Sweepstakes. There are over 1000 prizes in all,

There are over 1000 prizes in all, so enter today. And remember, nobody has a better chance to win than you.

GRAND PRIZE The Excalibur Series IV Phaeton. The standard by which all other automobiles of its kind are measured.

1ST PRIZE 100 handsome three piece soft luggage sets, including sport duffle, underseat suitcase and deluxe 2-suit garment bag.

2ND PRIZE 400 purple and gold oversized (36") Crown Royal umbrellas. Complete with protective nameplate in handle.

SRD PRIZE 500 purple and gold Crown Royal tote bags. With adjustable shoulder strap and heavy duty accessory pockets



Well to Crown Royal Excellent Swappt Hus

I have read the pressor	College Parking and	angeld big by a	only the Draws Bend
	kerning in a	of tradetaken	a reason we have a black
meaner to the following:			

- 30
- OPENER YEAR OF A POST SECTION OF M
- Apr. 35-51 (125-58 (135)-44 (11454)
- Osage Regular (2964 Dos (2) Swither part 5 Shotting Haw Boy (

DIALOGUE

FORUM

Orm welcomes speculation theorem. machine in this open forum. We invite your iend of exformal chaiogue Past generaties

Meanwhile. Back of the Lab.

Lam writing in response to the First Word that appeared in the May seus and wile

If Perry's pb of the laboratory had become ramply because her desourced with do work hmself testilled under oath in a thai molwing incidents occurring during his tenure in

aboratory employees then they clashed the best accertiges, encoments, and activity-

demonstrational Public-reformation officers strators, caftering information

because the knowledge to create them is not come to evecorate Green this neety world pasce and abiolity. They help the information They also ensure that our

major fusion-energy programs, two are

of nuclear war But I reakze that as difficult. one another and learn to live locather

Bill Perry Jr. responds 8 comes as no then po on to misquote me. She asserts

right to demonstrate but not their attempt to Part / strived that the laboratory's newsroom exposed to the masse' of dismonstrators /

Stephanson meses the paint of the demonstrators Whet I heard most often poorly eclarated And it is intrassible to say people's lives or guaranteeing their security.

Staphenson suggests, I guole from a letter charmentanci, and She lain man strongly unperf to hoday if the program optionsts, now called

catalons in the world ? Or is she supporting commendable Met many of the lab COORDINATE DATE IN THE DOT TRAVELED AND INCOME.

Stephenson notes that only 65 parcent of represents a dramatic increase from the 41 percent that was being called as late as 2353, and is avoids memorying that 75 to 80 Nove larger is being abent on detension

HUNTER SABOTAGE

EARTH

By Douplas Starr

he butters hed incruded through a were halled by a flashight beam stableng out from the dark. The a private

"Says who?" said a hunter, as he reached

You young to shoot me?" challenced Dommer The man lowened hit gun Another of southing, the hunters stalked off

Later he said. When the time corner

people who have taken animal protection to a new militant level. From a small band of dogs "Hurtens take pleasure in cleatrowing dector of the New England chapter of

rave Rick Story of the Wickle Legislative Fund a lotity for hursen Dr as Outdoor



is new in the country if has excited in sometimes bloody contracterions as they

anmal rights movement, which until recently rts. We were being Isatulat because

pampaign of sabotage in one action they used for poore turifing releasing an arrivals. trackend through a state locast, blashing separat

entitled Tote for Hunt Selocteurs ' Sent to to approvate hunters. One wish to strail through the forest with a nacko blanno, still arother was to fil harding ogupment with

a story to gross and soon reporters had scread the news ancouraging other groups

permits for cleer hunting on a Floncia widile refuge humane group members mailed in hundratis of permit applications. When the writtens were picked, about half the permis went to nonfunters. The yeld of the hund? Two close. "We wase and licking."

SEEDS IN SPACE



By Thomas Christopher

MAGN field is finding most of this exempts as grant of a dynamic spacebology program. Net is unamply infail propertition enror most interaction about an insequability forces on Tainth's lethows to any acceleration of the start of the second and alwagement. But just new it retracted the segar to their of each or subscription the segar to the other the starts are used the segar to the other the starts of the starts and the second second provides and the second second provides and the start of the starts and the second second provides and the second provides provides the second provides prov

Alteredity in this respects, Alter Bloom as the head of a latent of University of Peccey, the head of a latent of University of Peccey, the head of a latent of University of Peccey, been has latent weakingthing the effect of gathy too closure vision first space. The space of the space of the space pecces and the space of the space that is summation was gorounded by zero performance in the 150% sinces the bloometer most plant physical states of performance vision. Placewas a sense of performance was performed as altered performance of the performance performance was performed as altered performance was performed as altered performance perfor 1 in Novimber 1983. And though timelapse photography he proved that common surflower seedings oncommissed even when maked in constitute of weighteeness suggesting that Darwin cleapter his spremerse of techninistry was protably on the right mack.



Orbiting gerders give bolarists new insights

teedlings into orbit on Spacelab 2. schoolulad for the spring of 1985 to see whether the longer flight will result in lightfication

The control of the start of the

Jm Atton Park Seeds research devotes is privately intervated in the valuable musiblems that may result from the selects exposure to maximum observations of search relation. Park on the other hand, is tasonalad by the possibilities of long-worm totrogo of sends in space.

The data were collected so fat," says part, "Incluse we could have taken savedle up in a burdip sadk and footed them saved for her days anyway with no signifbard damage." Explaine to vacuum servers to incluse a very deep commany in social face in space almost inschmely without long her withing. The right, cur indicate saved bards and one day lind a permerent hore in space OD



THE ARTS

By Brian McKerman

Rescarse die born autoaute to nakud fran har own gevenment is konsten keines mit die die die des piet kanabie ankeres remitter to he one on winch he pessied af rucciee genit metalware invessiona angebe genit petterne invessiona surgery. A wei fragkend ongele is abduzate by exita angebes etter weise metaly by anyonale. French villages etter poesnose

Story class for Hopywood Refative? Yes of them have absorb been reade into movies and the neet have been optioned by viscous producers. What they is hat is that each is a bord described of is Milength work of nonteeon written by besiseting investigative author and "performinourneymmo sciences" John G. Fullet

By their classration Treash Talen my cost sensable to their to prepare sensors of being a great literary liquer. Tube repares Taget avoid and charrit avoid to great after a story that's starting and slightly the out, us story and those software, inspectrability liquids and has a net'h tert of road down to each meterer documentations to go with it. Without documentations has dery is uptray useless. With it. its imprigung "

There could assive the instalant for annual college problems, it is instaction probe entranced to grap the rest based and the wave-promoting pair for motics with he wish. Exability (also an author) and Observations and an author) and Observations and a control could observate the author control of the Observations and a control could observate the author of the Observation Private and author of the Observation Servation and a control of the Instruction of the Observation Servation and a control of the Instruments and the averts as a procident of Determ Mediates

Letter make an control of the control books, however, the share the control books and the control of the control table. The books are books and tables and tables are an an an analyzed presence of the May tables Cours and tables and and tables and table softektion the small spark of tour/tweaters liceh: support of the projet in the the tour carcinopane lives of tradition. A 30 upper traditional settleware many measures and the Akares Trangy Commission solution and the Akares Trangy Commission solution and the Akares Trangy Commission and the atomic grant on the top to the typeswhen a tabolaid starting commission to the Statutes Conversion to the typesmetal The tabolaid that the grantment capes of the camor dealing, the page with the camor dealing, the page that the common dealing with the transmission capes of the camor dealing, the page metal tweaters in camor dealing.

There was a constant shared of even protects over the year concerning the built they have in all been collected will juit they have in a single late. These states if the a times and dimension share, the herd lines to the they as to of mean exhange and means of the constant score. Used they an unshall do they are not all even exhange and in means of the exhange a most being exhange in a method of every mean exhange and in the exhange of every important usual today. Use to take they from the sub today, the loss the take of they down the today where a they for the sub today. Use to take and they from the sub today. Use to



John G. Fuller, chamater, true stones

changing any, so they follow along that line and make a groping story. Its a noveletic technique, except that lim not writing factors

Fusion's basin for finding sold states has been evaluation and tools in the Gentlman Conspansion (Drive Phase 1982) an account of corporate collusion motiving electrosimitatiy officials and 78e Many Changer Class, 1962), au unfatoring exposed of Wall Stress. In 1985, Future polarised horistical at 2-basis (On-them's the brist of his books to explore what he calls "the educe of enably."

The base have increases in terms being and being will a close processing will be whose sharp of a close processing the would be an advected by the second beam of the increases of the second beam of the second bea

Not wanting to be typocest as a writer specializing in UPDs. Fuller note write? The Day of 27. Anthony's Fine (Macmillen, 1868) it's a true story of exposition, a persiming brought on thy adding foods ocrupted by egot fungus which contens substances enther to freesion ILSD. On August 17, 1851 hundheds of people in the town of Port-Sairt-Espit in location France became sick and subsequently suffered from convetions and helicenstions. They had all asson bread made from rolling rive grain.

Evaluation for two months in 1968 and the anguish that had hit that town was so minnee that proceile oxide wickly recall what happened including actual delegate which i Lised in the book Many people are ablit networked, thinly mere years later because of this invested.

and the second secon

Low and these locate larger estimates and the second seco

Returning from Negrons Fuller declared to Brand to investigate the declared to Brand to Investigate the declared to the start Joby Pedid de Flottals or Arogo a pessart with The formal declared with decreared decreared German physican. A rays a littleedly worked thrankes, performing declared endy parties sorgery using an universities performe. He peterts were predominantly periode. He peterts were predominantly post, but they also included a differentiation sensor and the doughter of a sorrier presenter of the socurry.

"When I learned of Ango1 thought it sounded too fanout." Fuller rocals. But time of Ango at work, made by a pant U.S.-Brazikan modical team, finally convinced Aft that the body weak worth investigating that the table based on the based of the based of barged from tabled based in the subbased of the based based of the based of the based of the based based of the based of the based of the based based of the based of the based of the based based of the based of the based of the based based of the b

After this unneverging stop / fuller wood a liter/hygi one Wirk Alvest Let Detroit of (11 / Crowel/Reador & Digatel Ress. 11/3) discribert the work leading up to the natir matistation in 1988 of the Croco Yeme tomic power randor 30 miles from Barlos The took lisses the tractry of commission and lissing passe (reclaim) are accordent at wapper pains and 1660 (Ferry Commission apport on the come raymy commission angoing on the come raymy commission angoing on the come raymous the month from strange tracking and the month from strange by exchanger

 apply the same kinds of yardstocks any skeptic would apply. The difference is that I feel I'm a benevolent skeptic instead of a destructive one ?

Is ment descrive at the Form plant. Bags That is the event of the event of the description of nuclear power were the description of nuclear power were the description of the second plant of the the Atomic hybrid second plant the Atomic hybrid second plant of the Description and registration from the Lakak y accompany these accounts beyn nuclear velocities down of the the second plant of the second plant and plant of the second plant of the plant nuclear velocities and the second plant of the second plant of the second plant of the second plant of the second plant and plant of the second plant of the second plant and plant of the second plant of the second plant and plant of the second plant of the second plant and plant of the second plant and plant of the second plant of the

White on thights for a publicity tour for the Anneof Loss Desort Fulier head in amous concerning appartners seen on planes beforings to a more US a white in three years review in 1972 a jumbo jet had crabited in the Florida Everylations killing that passengees and craw. Month's laber the posting that may be plate we reported exert on planes that had bain killing with parts subraped hom the week.

Display fair of poperduring their jobs many artine employees lold of their encounters with this benevolent spint. The ghost's warrings are alleged to heve averted disaster more than once

* The Ghost of Fischt 401 (Berkley: 1979)

wild sind sinty taggest seless. The active heads of the place to stop the back tranheads and "Fuller says. Yes for me 1 don't reported what taggersed what pace in transmission of the place to the says of invested to starsmission of the says of the come formand eagement evidence as actually as uny even ministic proton would "A dewardses analong with messed taket became TP Link's was dry large 1970 to Extractor T-Link's story of how the "market Manuel eventually" cased of the "market Manuel eventually" cased of the "market Manuel eventually cased of the "market Manuel eventually cased of the "market Manuel eventually" cased of the "market Manuel eventually cased of the "market Manuel eventually cased of the the says of how the "market Manuel".

First in subappart Daols contrand to First in subappart Daols contrand to that we have a subappart of the subappart to a collegal, the heart The AI and Young to the collegal, the heart The AI and Young to the subappart of the subappart of the subappart in the subappart of the subappart of the subappart and the subappart of the subappart of the subappart and the subappart of the subappart of the subappart the subappart of the subappart of the subappart of the subappart the subappart of the subappart of

Now that the overtis of The Day We Bornted Ubb have bolen rewelled have Tuler run out of drametic investigates to ter? "Definitely not the answers, "The Bocdhrats and the adapter in the Bath taves some fortbolic mysteres and particle physics seems to be the togeter backet of all. The closer scientists availing matter for more in compared to be proceeded."

Not surprisingly of the many topics Fuller here topiced in socials of the power and laws. Excluding the social of the social have topical topics of the social of the here oversit creditive. The power power to my books is excluding the same and equally matter fuller register. The been official of determining LCPs and power with the direct determines with the line direction and the direction of the social of the social determining the social of the social determining the social of the social determining and the social of the social of the social determining and the social of the social of the social determining and the social of the social of the social determining and the social of the social of the social of the social determining and the social of th

The week one-rise of intelligent lessance information personance propies to device sequence out of lands and the guilde sudicers who believe everything and sudicers who believe everything and subjects who believe everything and subjects who believe everything and langeoretisky report if. These sign to be a balance of apply the alms keeks of yeacheded and any steppic world apply. These only difference is that I heal I mis betweever the disapet eveloped of a service remoting.

Does the criticism ever cause Fuller to wait his haids) does the strange end eightly the out stores? Sometimes year many because it would have been less of a haadache. But on this other hand it wouldn't have been as much hur. DO

Help someone read and write better with these free guides from International Paper.



Do you have a child or a young relative or an employee who needs to improve in reading and writing?

Then he or she will approxime these practical, readable, informative guides written for International Paper by people who know their p's and q's. Magazines, newspapers, and books feed our intellect and enrich our lives, and the need to communicate better has never been more important.

So belp yourself. And help someone you know. Write: "Power of the Printed Word," International Paper Co., Dept. OM, P.O. Box 954, Madison Smaren Straton, New York, NY, 10010.





THE ARTS

By Gregory Paul

Company of the second and the s

This is a good time to be weiging on densities 10 ump the most dimension tank of the tarm of the contrary, diversarial proposition, their excitance targets as shown and the second second second second targets and the best income restorabative of dimensions were created by Charlos R H ringht But dimensional became watere of these own success, indeed, of the very stab. Devices were so pagalated of a cross are limit by the Themes as wetter and they dimensional were stables and of a cross are limit by the themes as wetters and they dimensional were stables and the stables are limit by the stables the states of they an away them stables themes they are stables and were they and away them states and the stables are stables as the states are stables and were then stables the states are stables as were then stables the states are stables as a stable the states are states as a state of a cross are limit by the stables the states are states as a state the states are states the states are states the states are states the states

 Thego here pointed up and the backware here more the hirty and the opposition here marked maps drive sequelations into contrait Area the opposition of the weaken hirtigat the driven area here the backware hirty here have a sequelation of the weaken hirtigat here have a sequelation of the hirty here were access again backets when historical areas the historical transmission of the historical and the historical areas and here access again a backet hirty here here access again a backet here historical areas the historical transmission of the historical areas and the historical areas here access again a backet here historical areas and the historical areas and h



Tyristinicalaulus torius. To understand dirosauc analomy dissect a choken as you call it 20 Owe afforts to find clinosaur remains

I entered the reported to fail in the bits Storentin, that as volume at the Benthmannin Halthcore (Henrich and the Benthmannin Halthcore (Henrich Bahar Markon (Henrich Halthcore) were were were blocked) at atterne Hopkins Were were were blocked) at atterne Hopkins United (Henrich Halthcore) drosbate, Mort Benköur Hopkins were were all halthcore (Henrich Halthcore) drosbate, Mort Benköur Hopkins werte la vor ogen atterne hopkins hopkins and drosbate (Henrich Halthcore) wertet la vor ogen atterne hopkins hopkins (Henrich Halthcore) hopkins (Henrich Halthcore) hopkins (Henrich Halthcore) wertet la vor ogen werte la vor ogen boenden hispelage, werte werte la vor

Thospin one can never know instead with the transmission interface of the stream of the maximum stream of the maximum stream of the maximum stream of the st

I will restore a particular dinosaul for a rumber of responsition a commission. for a technical paper or often part because livered to see how it will come out.

These Stepsonautor services A clenght high barren berger with plates and sprins that can put any importang alen to starter in as baren tereson since the 1975 and is the solublet of many fusional services and in the solublet of many fusion services on clegity. But these are compatible motivate make form more than one clevical with the the motive of allebraic barren and the the clevices are two clevical with on its solution and its party desartoxized in all these decades party desartoxized in all these decades



THE ARTS

By Douglas Stein

ask is based of the Berry the net with the period of the based of the based within the based of the based of the based winding strong, the bright's outfield period to based of the base

Weakly segments, send in Liberon and elsewhere beyond Runpe, we buschast in segme survivoer to the American wave generation of the second second second with demonstrating human data that should be a survivor of the second second be a survivor of the second that is survivor and in the conducts the is survivor of the second where is the Proceeding and previous measurements of the second previous measurements of the second previous second previous the second previous second previous the second previous second previous previo

Ealities eventual popular for the becare the folgo all studies to popular all minisolutions of special all minisolutions of special all minisolutions of special all minical populations in the special minical populations in the special minical population of the special minical population of the special minineous of white the special minine minimum of the special minimum of the processing special minimum of the special minimum of the special minimum of the special minimum of the special minimum white the beyond and auxiout for special minimum of the special minimum

Moore build one straing similarity in a mejority of the Datas dawings, regardless of the usat of the datas or the wwwes ovaluations. The wyse in the solutions were huge up to investigations their anisotrability control size, and chann with fair more vigor and completiones than the other features. Those we are endorsed in to wind any highly engraphic applies of the viscous string independent of the initial works of the production of the initial works details and the registering of the string details and the registering the string of the string the production of the string of the string the production and the string of the string the string memorial of the registering and works the string the string the string memorial that is registering the productions and works in the string the productions and works in the string the productions and works in the string the productions are used as an advantage the string and productions and the string the string the productions and the string of productions and advantage of the string and the string the stri

 The version who don't crise tog eyes don went to the opposite software. The eyes were resize protectis, suggesting a defanse or sourcing against much of what hay set, or source against minute the minipheni, eager to get everything going on in the respecte strateging in the minipheni.

The device offered for ververs to suspend disbetel in Datas is a common one. These



J.R. Mein characteristics executed

I dialong advertises accum in formary America, a morp abbudy not proper of a provincial areas. This is not the story Barriel Namer, Barriel Namer, Barriel Namer, Startel Namer, Monor enrinks as "The sond fingup and send it insight for under packet occup barriels for lates of investbackase the notability depicture for the because the notability depicture for a firm' for users attribute to grave the depictor occup barriels and interacting your currently and experiment. Because in the notability of the since the story were interacting outputs and experiment. Because in the first and experiment. Because at the first lates accuments and and and accumentation your currently and experiment. Because at the outputs and experiment. Because at the story outputs and experiment.

a) It Brive, The Machenenian power tool and head of the online base of horizon the character most invariant, and the second power of a constraint of the second through the second power has a second power through the second power in the second power is a second power in the second power in the second power in the second power is a second power in the second power in the second power in the second power in the second power is a second power in the second power in the second power in the second power is a second power in the sec

In some verwerig privatio workda, JR is hence because the sometricrably demondates the treedon to do which the webra. to be imputive and to submit to no authority beyond impected law and induce Neny workdwide studies show that this concept of the privaleged' being shally tree is a unveral image had by all "concelle" propries

Toregrand series the literity bitmay as threads inderivation—as bitmition are in more threads inderivation—as bitmition are in more reprintmentation, and inderivability approximate and make placeable by the provinted bibertee assignment to thread of grants weethy provide as inderivation and and the second character as optimized on the Phil Donahue TV are memorized bitmit. Phil Donahue TV and memorized bitmit. Phil Donahue TV and memorized bitmit. Phil Donahue TV provide and philosophic philosophic

To shose who don't identify with J R as contracted on Maximum

NETWORK LOVE

By Stanley Milgram

Suppose you poked any her remose as another term the 30 km million people who hen in the United States and listed bink the you would of acquartances. For example, you would orotat at hence, from team would be needed before the two people person needed before the two people of open needed before the two people doesn could be headed up?

When papelpia are school albod they they often any that integrituation (150 or mode cauto different Whith at Harving) Lossing out appearements of the social of a direct works protein a school with a direct of works protein a school of a social-interces off-automation and a person in Networks off-automation and a school of a social-interces off-automation and a school of a social-interces off-automation and a school of a social-interces of a school of a social school of a social-interces of a school of a social school of a social-interces of the school of a social school of a social-interces are school of a social school of a social-interces are school of a social school of a social school of a school of a social school of a social school of a school of a school of a social school of a social school of a school of a social school of a school of a

According to this finding, you probably oculd link yourself to the Preadent using a short chain of acoustitances. Chances are you doi'll know Rotabl Reagan personally, but you mgM have a good firend or close relative who knows a congressmen or a riverd of a congressmen. And the congressmen, if he decent know Reagan personally most likely knows someone who close. So between you and the Presedent are just these or four intermediaries.

This is a perfact exception of a network is option with many extraconsisticities. It also shown how if a possible to hop from one port is the network avery large net—to another People have always format from other people with knew (other peopleand) used them is more people who could help them per alread; to obtain information or simple to mane have peopleor simple to mane have people-

This isom of networking a not new What is new and will know perform a program from writi will into the treamy final centary is the computer bloggi using lapping applications more campaters can be linked to one horizon and any forming an agging and a check mit the content table of the forminto Computer-which is one of the main servece final link from computers.



I begin by calling up the CB winklater downed Dras young on to this of the lisewing to a CB radia with many pacete online. The only of therman is that index of the duback vacase of trackers, the conversation is seen in the bism of years, chapter lateras on the computer screen. To the unimitated all all confusion, the vacal aquivalent of the mindless, burners acceleration of a consist party.

but the generative of a counter party and another than the second party of the another with the second party of second par

But do doriversition a translate by individi massage from die pote-translate naappany mat ofers on the sense-translate a indexer challed a anytes bet individual with a conversition. The liage individual with a conversition continue our testsyppid conversition unimencipate in disclosures contained anytes to contact, and has individual manual us offers to part our disclosures.

Consultor networking gives the user in channel to control a work enrice of people who might otherwise not be accessible to be beep problems of humen communication roman. Whout being able to see the period on hoar has work the user horizon hims only as an abstraction: an alien methgenon from another pailay in these convergations. The most element's human characteristics med to be confined

In one exchange Rind Baron says to Pepper 1 An MULE, AND LAM TWENTY HOW ABOUT YOU? Pepper responds: MALE RETEX Red Baron is not thilled with this revealation and, reteries is bits only response.

Fromes, strikes, grimaces, gestures, gender cues, and tane of voice are all eliminated on the computer. For example, when I ask The Sage questions that require thought, be types in the void Hawawaw contractionate with

TOUCH THE SEA

EXPLOR/ATIONS

By Louise Cooper

A sittle large purple-mouthed moutes at but own of our amel popul of deves need. This bitway are all popul of deves need. This bitway area is been Source and party Bha Tolda out a chark of holdage, party Bha Tolda out a chark of holdage. Itel all access down mouth with a characteristic beat assess down mouth, which deves the coupling the toldage out and the coupling to the site of the site of the mouth mouther to coupling out of the coupling to the site out of the the coupling to the site out of the site of the mouth mouther to coupling out out of the coupling to the site out of the

Describe the larger does encounters of the wind also exactly the response way and dwarg with Gam Encole 1001 are test been haven a periodic theory of source and the set theory of periodic theory of the source of the set of the set of the set of the set of most diverging regimes that when revised memory, scoreport in the makes were demandal and there were the beam does were deven a wardy approach have device and deven a wardy approach have device and deven a wardy approach.

On the whole such precautions are

posterial of a back ideal, but for Scarr observation alone has nover been enough During years of interacting with sea animatic take search that back durits of more one learns, the more network of the becomes to buck?

In 1997 Doarn is formed lingtable boardise worked as a chost of packan has disabutor. When the developed a chost of classified among diverse work last in the table by the home retenze with sea arrwais. Brew was fulled to the last of arrwais the coast of Vernousli, by he more time 100 easily absention a start diverge at was and by the government when has encouraged by the government when has encouraged

Dri out the drive. Scan introduced us to more alaborary similar baseled us to the bate of a coral where malicicateries real simmones were dischool, their handbase were glowy with the movement of the current A closer lock revealable served "blackers" interro, which the among the americans billhows the among the animal hand shows the amongos, several attemp global on our highers and begin closened



Die Sowr Inaches her divers to buch the unknownable ihren, a long-spinod see uncher 35 Okra

the data form our sider. When they were instruct, we reached down and bouched the americans. Their nematicitysts, loa week to taing, saidhaid auf in a gentle ripping moden to pull our lingars toward their heldian insolates. We led them tary bos of heldioa, which they downuned nucles.

Brook line began dwing off Bohan. Soar has dwinghed some long term hands. A not hind (a small tas) of the propert taming loss mail tas) of the property of the source of the source of the taming hand (a source of the source of the source) table is of the nod stream an whysmonth body lack the Source dwas on Dening s nod. The now very infectorete protein spectral for food log dualeter

Eminity's apsended founder—to named for the indexing that and bages experion its back—core up to Scar one day and acception a handout the reset day. Scar were back to the same spat, and he founds when been acbeed cover Yest, mappeneors its and a series and the indexing of the series of the terms of the percent. It index inside the percent. It index inside the index of the terms of the end of the index of the terms of the end of the percent. It index inside the index of the terms of the end of the index of the terms of the index of the

 NATURAL ENEMIES

THE BOOY

By Susan Elfa

In our guest for a longer, heather life, we doe nuclear power plants bein determs of postacidos, scora productios deritaring additives and preservatives, and odd for the naturalin our dist. At losal one boochemat however, suggests that we may be focularing on the wong offenders.

These is accreased maintaining that constrained maintaining that there is a second maintaining the other is a second maintaining the constraints of the second maintaining the second maintaining the second maintaining second maintaining the second maint

Theirs the bad news Balancerg I; Arres ponts out that resure probably also provides an abundance of substances that protect us from catchogans.

More insite in declade logo. Annue daved prodie i alse für ochronologi multispere öggenetic hall aller geneticie materialiti versional insite aller geneticie materialiti versional insite aller aller aller aller aller aller aller all chronologi hall ocasio cancer fina allere conclusies that most multispana and casen conclusions and concerning them other experiment. The answer of the multispana and the provide concerning them other

to work incomparing is invest to approximately 30 percent of all cancer dearts in the unled States and that cleas here in their and bar in the most likely help to lossen the risk of cancer But few people realizes that another of foods—colory panaley paraneps, inclusion, mustaid mustrie o two. rooms and honey among them....contain minute amounts of cancer-causing agents. Even the sectringly bangs herb basis we drink and the peanut butter we cat have caracterizers in them.

Laboration and there of the same category activation of the comparison of the same category memory of the comparison of the same category of commonlishing the theorem of the same category of comparison of the same category of the days and the same category of the same category of the same field become and contentiate and cognetistics. But all backs for the same the same same category of the same category in the days and the same of the same category in the days and the same of the same category in the back of the same of the same category in the days category of the same of the same category in the days category of the same of the same category in the days category of the same category in the same category is the days of the same category is the same category is the days of the same category is the same category is the same category is the days of the same category is the same category is the same category is the days of the same category is the same category is the same category is the days of the same category is the sam

Area stresses that it would be premabue — and possibly unnecessary—for people to give up their laworie foods. If just want ploops to put the question of manmade vorus natural coronogene in perspective. In early

According to Amies, the way we metabokee tood may account for the majority of carconogene and mulagers in our body Attining the by products of normal imstabo-



Roubards whart 19, too, constains carolinogens

Ism are molecular fragments called oxygen radicals, or free radicals highly nastaw, these meloculars berefand calls and choice them off term massare and nounterment Ar the call' liabres day up tooc wastes are locked in and eventually the cells sinvel and pow rad

Come essentials suggest that worklose indexed skyn, and off print my result in part hom organization. Deer time have lather and hindy data that have been road seen live programme of health acception data and philip. Have to the acception data and philip. Have to the locariset heart devises earthly and a complete heart devises earthly and a aging according to Ames and his obligations.

The self not proved that the organizer radiations a major contribution to aging and cancer shower Arress Taut the andercon stating to support this? Retherd Cuter a rospace's escents at the National Institute of Aging constant's date that expent radiations are important in determining aging retrained by appealative but we than in the bade bat with the even.

Forbundeth, The body can initial the effects of oxygen malicels. Chemis pointed the substitutions stated informations in order and the state of the state of the state of the ouncer studies are find ny theap protection before informatic add, and the immedia before informatic add the add theap and the before informatic add the themacon with the in the informatic add the state of the

There is fair of evidence learning to perins to the first and create is all of both countrypens and antroaccreages. Tays works by sharing files a souther start and works by the able to gain people additional perine there are people additional people and the start and the start and the start gain. A more expects there endus gains chang file and start and the start start and the body's boothers by earlier start and the body's boothers by earlier and the constant works and the start gains and constant works and the start perine constant and the start of the postparity constant and the start of the postTHE DATA DELUGE

ARTIFICIAL

By Alvin Toffer

fibrs of words have been written about the Information Revolution to hui very liftle analysis has been devoted to be causes Why are we now orittening whis some call the Information Age? Why not 100 years ago for fair fair matter 100 years from now?

It is of coarse sleerys officult to establish the causation of any great historical development, but I beleve that the hadden fuel of the Information Revolution is a combustive markum of develop and accelerated charges

Beno approximately the mail Flags win bank approximately the single-application lines. From sechnology to aphrophy and these the second section of the second section provide the second section of the second second section of these more second second section approximation of these more second second second second second second second second second processes more second second second at charments file second responsible to a plateat version of corporation second processes more second second at charments file second of second processes and second of second seco

Deversity is breaking out all over and the sudden increases of heterogeneity at overy level is creacing the old formal sinuctures of the Industrial Age.

Ower the paint 300 years, the industrial Benching pains may be a china of intercannedred mass societies from Europe and North Amass to seak Asas. These are societos based on mass production, mass cateful in mass education mass media, mass or infatterment, and mass policitic mass destruction. They are societaris mass destruction. They are societare built on a blue-ociatir any of the

In their soleries millions of people assemants or loss at the same heur commode to work in uncert and the machines in your with one mother struct barbe with the same IV program as the what of emission without mother struct a what of emission (where works) and at all where the weaks of them reads to emissions in short, where the disc commensues of common locations. all the industrial nations, from Japter at one end to Europe and the United States at the other them was, unlinecently a very high degree of what might be called "messness or unionney

The results of encoded for region random variables and the results of the results

The twice would construct fact of our one, forware in a final the entire process of material cabo has now manifest field. Pather from bockmeng more allow we are broken; our the old mixed should be tradening within a service processing of the pather is service or the service of the hold word that social entire pather that word that social entire pather hold word that social entire the hold word that social entire the economerse to be a fundamental unit of the hold word of the a fundamental in the green



Compohers Roder new social structures.

the Underlying structure of society

When we that proceed to the information part the main throad of change waits loward applied montry of change waits loward happloymouthy toward happen support production. The new lock works beyond measing production to compute hosted outside production. The new lock works beyond weekly and left hums and the hostessery loy precomputer models all moder values and and an and the model of the support production. The new lock is all models and precomputer models all moder values and the support of the support of the support precomputer models all models and substrations.

In contransion we are moving incriminates markaning to markat segmentation in boolety, we are moving too the nuclear model of ferring too too the second of the formation of the second on the second of the automote with a second on the second on the second on the second on the formation media and boots on the second on the formation media and boots on the second on the formation media and boots on the second on the formation media and boots on the second on the formation media and boots on the second on the formation media and boots on the second on the second on media and boots on the second on the second on the media boots of the second on the second on the media boots of the second on the second on the second on the media boots of the second on the second on

In a word, we are de-measifying the mess society We are peoing together a mess differentiated society mode up of more varied components. And that requires fair more information to pulse back and forth amount the components

Imagine is cryptic biological cognaminin certification for response in the level human with the response in the level human with the best with the level of particular control and parties and the based of the other interactional to control and the parties in a difference parties and the parties in a difference parties and the parties and the based of the parties and of which interactions and based of the based of the based of the parties and the based of the based of information and base based on the based of the spite of these messages currant information and base based on the based of information and base based on the based of information and base based on the based of the spite of the the parties of the based on the based information and base based on the based on the based of the based on the based on the based of the based on the based on the based of the based on the based on the based of the based on the based on the based of the based on the based on the based of the based on the based on the based of the based on the ba

And the more specialized or diverse the parts of the body, the more information is needed to function well. There is more information fowing through our bodies then through the body of that earthworm contravels relief. en

SATELLITE ASSURANCE



By Douglas Stan

payload a commercial satelike called intelsat 5 A in all respects, the June 9, 1984 Jaurch promisiod to be routine

Dut the losses of 1984-matrix \$200 could possibly sustain Releasescaluled The

Goez 1.5 is 200 OLT them, says James could styme private enteronse in space-

No one wants to put down five hundred who is the chief of NASAs Studies and Economic Analysis Istanch, When

1000

The moon is above. This along of eatalitie failures may fell the spece-insurance lockietry.

ton, DG restaurant playing bridge Then mutanelion-dallar mooria. So Berrett

For one thing, satelines have a high acodent collect. instrumen comparisas abs/d out

on Early Brd. Compat's inst communications

a policy on a ration of two Corregt moons dockuptble His strategy worked. No insurbusiness. It made a creat case tor buying

Soon brokers were enancing multimlion

FLASHBLASTER

BREAKTHROUGHS

By Bill Lawren

Interprof. Income prevents of an another the state of the second of the state of the second of the second of the state of the second of the the second of the second of the second of the particle sector be set the second of the particle sector be set the second of the second of the the second of the second of the second of the particle sector be set the second of the second of the the second of the second of the second of the the second of the second of the second of the the second of the second of the second of the the second of the second of the second of the the second of the second of the second of the the second of the second of the second of the the second of the second of the second of the the second of the second of the second of the the second of the second of the second of the the second of the second of the second of the the second of the second of the second of the the second of the second of the second of the the second of the second of the second of the the second of the second of the second of the the second of the second of the second of the the second of the second of the second of the the second of the second of the the second of the second of the second of the the second of the second of the second of the the second of the second of the second of the the second of the second of the second of the the second of the second of the second of the the second of the second of the second of the the second of the second of the second of the the second of the second of the second of the the second of the second of the second of the the second of the second of the second of the the second of the second of the the second of the second of the the

The many rate that accompliant the list for the second se

Curously, it was the world of art and art meteration that fest put Asmus on the mail of the Bashbilsonir The supervision of gallenes in Vanice Italy approached Asmus, is garning in laws repolarities accuroning lases to clean the gree and politabris from the only integrated addumt and totalings. Least give analy detends the capitalia or Versions encounted the capitalia or Versions encounted and the capitalian or Versions (La Capitalian) and the capitalian or Versions (La Capitalian) and second to be oversite with the capitalian of the second register of the capitalian of the capitalian of the second second second second second second and second seco

When lease light can be used as a cleaner because it is absorbed only by the norwhile enousablons on an object which then heat up and cleaningrate. When the lasor light his this white metanut say metble, underneet his block encrustration. It



tvocesr Astron and his Residuester

bances of therefeesity because the whodoes will not advect the who light. Across decided that a very bright whole light and/wwrk, and firstwyl an an ported later and would be able to clean integer areas at a new the beginn were as a more than large which may be not advect to the source because the source and source and decided that were appreciated and the source decided on the source and source is an average to the able to the source of the source of the backflower appreciate to the an exclusion in the source large and the source of the average the fashibiteser appreciate to the an exclusion of the advection of the source of the average the fashibiteser appreciate to the an

As Asmas begins to modely the flexit large to make it more powerful and capable of operating at a wide range of www.inergins, practical applications for the flaxmas and head to be a more than attracticate begins for point with some atmas and head to be applied with some awarpool with requests from art reducers, manufactures and mithany contrastors

In addition, a nonzero of later first and the control of the second second second second to a control of the second second second second to a control of the second second second second the second se

But the application that most integrate damas is the dening of subsect to take we been constrained by face channels and PCDs and yellow time and the Bowel werk with channels website. Amount sign the drill a fighteen time, immersed sign that is fighteen the anti-gain sign. Amount methy scalar in the early Egithes Amount and has been an



CONTINUUM

ACH! THAT ISN'T EVEN WRONG

Conco a a nature inverse activity Proschood children status eliment has by allering succh guardense as Why do status eliment Way is the sky bland. How many social auchood on have mode mer thick on early, participating auchood on the mode mer thick and the bayes in auccounting, or an one of the status of the status of the status of the min is and group to become a bayes in auccounting, or an operating for power and the status of the status of the status for power and the status of the status of the status of the linead the other a be offened for all authors.

The initial loads, but is cases in operator is full classes? parts, and an analysis of the initial classes and an analysis of the initial there is reflect one at unpredictable sime. Offer they are operated by the undreading of a long they were also create one as context of the automaticable sime. Offer they are approxated to predict the initial classes and the analysis of the abset one of the analysis of the analysis of the abset one of the approximation of the analysis of the abdition of the approximation of the analysis of the abdition of the approximation of the approximation of the above of the the approximation of the approximation o

I central vouch for the authenticity of the story, but the point is that in science, the range of talents is enormous, even among the great. This has taught me several linings. Take science very serpairs, kano in mind your heritage, learn the halters, study the intelectual hordes, whether hawken and Linden, Heateur and verson or Darwn and Preud, and kry not to take yourself too senouely Life and its joys are precisious and finite commodities. Beek that nothe in science that provides some devisionar fun

When Let may any activate lattice game you activate initiation in the intervent if have been interpretended to some the B Ho D L and the there is the source of the source of the source of the source of the there is the source of t

But the relationships that every a base in , 20 weeks a set of the set a set of the set a set of the set that the set of the set that the set of the set

Loon M. Lederman, a physical, is the director of the Ferru National Accelerator Laboratory, in Balavia, Bricia



CONTINUUM

SUPERMAN'S

Alore in the Archo Superman once has fortress of software and places is simpler or yasked into the appropriate sitt on a gloom into the software data. Supdeny has not a supermaniate by a threa dimensional cost of the software in the only on the threat software in the engine theory in the near of theory heatgraphen threat

As buunsteinen tournos, such three-dimensional single has arready been accompliabled, and at leas cos neseatorier is working on rahang the pisoles Utriminely th

White you saw in Superark / is not finateshad or ell." says Lynn A. Boshreand analog physical at. Cak Ridgo National Labora Carry, in Bonzester. The company field ponential distechnology. Physical Activity Bechnology. Revised a nuclcorrest in a constal of Binnitochica somo optical and apport premare anoses apport premare anoses apport premare anoses apport premare anoses.

Buster is working with enother substance, polissum tentalatie mobility, which he believes holds the most promise for longterm image retention and the creation



Aut his Superman's crystel

ophraum seriabivity

The holographic integer a created using a toror, in the strine way as a convenloanal indication of the crystal goduces a new alongal opportunity, and Bodmar expectibility latened crystal could noid incurande of Pree-dimensional intogers Because in required a

complex arrangement of equipment to record the im agais, Boather sees the technology being used menty for archival atorage and read only memory

The potential for archivel storage is enormous," he serves "These crystals could be used to store, say, at the Bocal Security information for the United States, as well as such things as technical or literary & between "....Pick Botro

"Gat your facts first, and then you can desort them as much as you place "Mark Terrer

A le can run around the antid before the truth can

-inster Wet

BLACK WIDOW CROSS HAIRS

The balack wolds, pagker is potatisely least known for the knemess of intravent pre-knemess of intravestra (but down of the as it may be an in own intervent in the intervent web-which is stored in the special intervent web-which is stored in the special intervent to the special intervent to the special intervent inte

The secent of the block, widew works carbinates lies in as brutous combinentian of themass and strength floor as use? rays John Massac, sub-tenistons detecto for Philosofprints North Armescan Sunnyy Suspay Company, "To Suspay



Block wollow spins its web. The strands are stronger theo also when held under a symptop fourset, they abl world break

Miloszar, 'and they still have the original webbing in them.'

The epiders are harvorled in the weld-wey canabilyby prying them loose from refine loga with a stack, from location (from mo a pr. Back at the paint hey are inderated in a mahar ana When production time comes a human franche tame the specier over and tables its befly with a stack well i stack to seen.

The spaces therefore with these human symposis is to provide the symposis of the provide symposis of the sympodiane up to two field of en during as while it was body a group of the sympoen during as while it was built as the symposis of the built of the symposis of the built of the symposis of the provide symposis of the when supplets run from the when supplets run from the symposis of the symposis of the symposis of the symposis main is sign Middata, when supplets run from the symposis of the symposi

"The memory of man is as off as misforture."



It's warroom as represented in the more of beingelow. The real Bring is a low tech yowner, with risk living under the carged

WIMPY WAR ROOM

Instant the Persepose services and access tables, tables, been screens that can be one of the service shares the one of the service services and model sets to be the could tables the fight of above the reference of the above the reference of the above the reference of the above the service services and particular to access the parts in other words, a beat house the technology they words put to these in the Stangalows and these in the Stangalows and these in the Stangalows and the Stangalows and

If that's your picture of the label were room, prepre-pound for a shock the hours of the label were mand Cartar (the war room's real name) was necently opened to reporter show of a rooter) pender show of a rooter) pender when short a rooter) pender with nation gould a two rows of chairs. A couple of sho seals obvined with Neugathyde for the top brass the norm is not bornbproof The list real abon there was a routine briefly during the Connect brief of the recents living under the recommon there.

And the fibility of the initial consuming and table phones that would about the between phones that the between phone that the between phone and the between phone that the phones and the between phone that the between phone that the phones and the between phones and the between phones and the between phones and the between a between the phones and the between a between the between a between the phones and the between a between the between a between the between a between the between a betw

James McGrogor a seporter who covered the revent for Knight-Redder newspapers was left with the impression that the norm is not used much for omergency situations The Joint Chels of Staff. In align These than own room observation the Penrecon T as the the Peneristen he's been in the war room only once for a break wat it's the case's of a genuine entergency he would work where trem is flying command position from a center buried deep in the mountains along the Pennsylvana-Marvand border

All in all, Molangon was less than impressed with the war scorn. 'Basically,' ha arrys, 'n was boring. There was nothing innov about t, nothing that looked parlookady explanationated in toots' the away in what may be the universided out of all, 't we seen more heat tech.'

"The present is an inharlode—a strange interfucto in which we can call on past and future to bear witness we are living

-Eugene U M

SUPERGARDEN

On a 20-acro California tem calied: Top of the World, agnoultural John Jawons has evolved a system to grow more with less: With hand bools and Jawrone Litarre, even a city sloker can grow enoug to two on

The system blocycame. French interceve (BFI), request that is britually dug, two tool-deep sol bec be superemchind with dead leaves and all manne of organic water. Thus prepared, the sol can hande four timos as many plants as a normal garden, with vegetation carpating the consult on sectorship. overgrown diserne

But what books like an unmatidat, were chabled wegatable-anis-trust patch is in rolatry a hardry econyslent. For exemptie, eclipte tools of the source that all large word) attact book and the films where the source and patient of all the shaces a difference and attachable beam and attachable beams and attachable to desa processity is kind of spinished root charvashy source and the source and source and source and source and source and source and the source and s

"WHE BPT America ocaid meet as book needs on our methem notice access of subpatters investigation of subpatters investigations and subpatters investigations and other energy, water, and other energy water, and othe

- Fro Mateo





The secret to John Jeavana's supergenders is supersteasily

CONTINUUM



when it theoremosity shouldn't - good mean for burn waters

SEA SERPENTS FOR BURN VICTIMS

A sea sorport called Patence plants of the yelleached plants of the yelleached and sea snake is the most cosmopolition and possibly the most numerous typic on Earth how one service schede to sea annet sould provide a model for developing lifeswing antecel seat

Peiams is a totally memoconstant that levels on the surface and beam live source that the source of the memory of the source of the vertice of the source of the source of the the vertice of the source of the source of the the vertice of the source of the source of the the vertice of the source of the source of the the vertice of the source of the source of the source of the the vertice of the source of the source of the source of the the source of the source of the source of the source of the the source of the source of the source of the source of the the source of the source of the source of the source of the the source of the source of the source of the source of the the source of the source of the source of the source of the the source of the source of the source of the source of the the source of the source of the source of the source of the the source of the the source of th

Two for time feat long, they have the bodies, orkive alle, which has class when have have the class when have the special self-excessing gland under their tangue. They can stay submerged for over an hour drawing up to 30 percent of the oxygon flay need discript from the wefer by centrals. Scientistic theirs access ranogon difues from their bodies. by the same process, anabling tham to ascend rapidly without getting the bends

Vote: On rep part and show water always moves from the part always moves from the part always moves from the part is a strange of the part bound of the second of the second of the second second of the second second of the second second of the second of set There is a part of the second of the second of set There is a part of the second of the second of set There is a part of the second of the second of set There is a part of the second of the second of set There is a part of the second o

"It is impossible to travel laster than the spend of light, and centarily not discusble as one's hat leeps blowing off."

CHOCOLATE CHIPS

server is upper only was carried in 5 Arbon Gaubarg's Mitum New Jarrey, annel hogatis, the vetaname was surprised to learn the appennic datase of deet two pands of chootate onlys. The dog had devocred the chocolate become hypehadow, then eventually weet into convulsions and ded

Galaxiery pontrend with circular parameterization terms in parameterization when them issued Netcool Concer who board another hep thereis of the at multiling the board "the data" days a board "the data" days a board "the data" data the coado board them which choosing is made. The choosing is made. The choosing is the board black to the bran." So the black to the bran." So the black to the bran." So the choosing d the bran.

To quartify the toxic affect of theotomers on dogs, Gausserg and Blumenhal leads a small non-tetteral erround choicestates to a comma, then determined the amount of choicestates to a sector of choicestates to a theotomers of the termine oppendent from the oppendent of the termine choiceste bar could kit is five-sound dog. 16 concisit could be lethed to a 30pared dog and to con.

cuprtly high levels, has toxe potential for humans, Blumenthal says But a human who ests too much choophau unlike a ravenous hound he says stops enting at the moment of salety, which is well in advence of a town reschon.

Many dogs to overdoe on chooolate veternamin Glauberg suggests and the sinstote he recommenda is a tesispoon of two of hydrogen percente to shduce verifiang

Meanwhile, back at the ranch the latest in futuristic reproductive technology is man-made twine

Luciable periodial introbent "burst-lamp" relation to the second second second second relation of the second second second periodial in a build relation of the second second second second second second second relation second second second second second relation second second second second second second relation second s

This feel is possible, 2004able State researcher Percentry 3: Welfame explana, sendause when the empryosendause when the empryosendause and the empryotion of the empryotion of the empryotechnologies and the possibility of the expenditure can apple the microlocopic landstate and the microlocopic landstate explores with microdecipic surgical tools, transfer it to the footer motive let notice do the rest, and multiply pergission and the 50 percent pergission and they we cohered with spit embryos is opurverief to a perfect 150 percent network whole criss—which departs why celefone might be quite arithmesite boost the new technology.

So very not toplets, quadropats, or man? So lat attances to quit the entropy buffer have bled probutay because the neuthing solces are too and the neuthing solces are too a critical number of calls in casesary for the normal devolgment to the entropy any Wileness Policy twenty calls into and to get a successful pregnancy?

Williams and tea coworkers are now eveng something called chimeros doming as a way of breading more than two animals from a single tertilized regitroucky, a diminate a a pelatiwork animat ace at pelatiwork animat created to an two or more genetically unrelated cell lines. At Cambridge University, in Englished, however, nesearchers have pensiened a warshow of this technique based on the tech that based on the tech that calls of the servy embryo. develop more this falsa the net becoming the placerta and other supporting teoplahistead of marging at hister histead of marging at hister histe cells, therefore, the asserbala hit on the stee of tearing just the supporting tearing just the supporting tearing to the supporting tearing to the support of the divergence to the tears a tengon tearing to the supporting tearing to the supporting tearing to the support to tear the team of team of the team of the team of team of the team of the team of team of

The technique works a single embryo produces five lambs at Cambridge The Colorado team plans to try thig same thing with cattle — David Deeler

IOBOT COP



Now those a new way to multiply the herd. Cattle embryos we being split in helf to produce pairs of identical prives.



to send in a robot with failing as a misphone and a vocal

her and was also "heavily smed"

When othorais opaidn's persaide Hauk to amerge Dapament of Hotas Salety to hot That group armed at less he nost morring bringing with them a rebody a \$17,000 210-pound vehcle with a mechanical head. We hystaulic arms and a head comprising a video centre and sociality.

Remote-controllial by computer, the nobic bought a Misphane to Maufa workdow but Hauk made no move to a treepond. After wathing nearly at day, the police conveyed a message to Hauk Prough the motor public address system. Hey will are about to use gas on you (a task the robot can perform) Why den't you mok you the phone and fails to use? Annuals, Hauk reached for the phone

The robot, built by Bob Pederson, of Toprito was infailly designed to cope with terrorist bomb strategies the 1876 Monthed Oympical it can shoot out wendows with its shotgun and from roach is shotgun and from roach is and recover a bomb. It can also shopt a of of water with a bomb Contenter les disattes an se Diseatoring or the original application, Pederson here september, Pederson here sectors partice and sector half vernet and the solution and the original application here. Communications partice and the original application permit on the disatter operpering on the disatter operpering on the disatter operpering on the disatter of Disatter of the solution permit on the disatter of Disatter of the disatter of more than disatter of the Disatter of the disatter of more than disatter of the Disatter of the disatter of more than disatter of the disatter

Another possible use for the robot asis Processon, is in clearing up after chemical and nuclear occidants. At one of Teronto's four nuclear reactors in fact the obot has already used its built-in valoure load the built has already used its built-in valoure learners to pick up the talkdeatewe present of a built learners of Public Selects, notes, "If alther send the sobot in then one of the "--Wardy Lucies



· · · ·

CONTINUUM

ARTIFICIAL SALIVA

Theusencies of people are unable to salivate no mether hey arong their Peutovan response to that stock on the grill. They suffer hom xonestens, taky mouth) a condition that makes earling and speeling difficult and can also lead to one-health arobitions.

Now there's raiset in the form of an artificial salva called Mor-Stir. Mor Stir works by creating a lubricating lien in the mouth, ac advery glanda carlan redications, and Sjogrenlatison syndrome which tres up a particin's saliva, ears, and (schetmes) gabioantestinei paces

"There are a sol of poople out these who really could use a product like this " any Montrye, "but the reason it is needed by too small a procertage of the population to make a magn extension poorling campage francish (testible unteresting on the sole)."



For people was servicional the mouth is a perchase depent. A line sources artificial solve called Mol-Silr offers some wild.

cerding to its instructionates, kingswood Lationithmes, of Germal Instance Texin Insugh it chose a Mile, 1 seyo Kingswood way president Texi Machinyes, the film will hald water against the Issue II you just dimik water everypristics in a law soconds: But Mor-Stell tests reach films threat

The man-made salvs was designed for patients with radiation damaged salvary glands Bull it can also referve dry mouth caused by suggry near the solution atable from Kingswood Iboratonies, Inc., Box 744, armel, IN 49032

-Calify Stone

... AND AN ARTIFICIAL IOUTH

These champing eachte heard in William Douglas's lob are the mechanical rummetions of an artificial mouth. The device has healt arywhere from 2 to 84 leach index a Provide State Index a Provide opened. As the leach champ In humanike records (ingles behaviored) therein a artificial sales. By turning knobs on a bank of panels and bybes neaderchein olan tegelatio the prosessor, engle and speed of this show Aberweid they can measure the wear on soch toch, down to cres testih the thickness of a fruman har.

The matchine could sound in the development of how cannut relationals again boogstars is interrupted to the University of Montenation the University of Montenation entering bordens of the sector providers of the substance is attracted to estimate the sector exception of the substance is attracted to exception the substance is attracted to exception of sector sector and an exception sector providers and the substance attracted the sector attracted the secto

In early reads, Dokuştas In early reads, Dokuştas Na muchane bird creative Na muchane bird creative na muchane bird creative neurotiy, he's used he meurotiy he's used he meurotiy he's used he meurotiy he's used he meurotiy he's used he dokurd finger and waxmatos dokurd finger and waxmatos dokurd finger and waxmatos be chard neuros neuron and-mempi hit was allowed be chard neuros and be cha



Good Foday. The plue is this We enough turned to block

THE DAY CHRIST DIED

Even the Homan Inductor Tractics agreed that Josuic Christ was executed that Josuic Other was executed through the two years—an 2010 Board and the christ of the the Homan Sector and the the managed to exist they and sumanged to exist they and sumanged to exist the similar how been taken to the full moon of the Jewell Name Trave been taken to the full moon of the Jewell Traceower and change I tom years.

It two Botch cowhits an connect, however, Chrisnest can now out permanent datas to commercial (assaile data and meturoction. The oracitation say Colm J. Humphreys and W. G. Waishington, of Oxford University, occurred on Entry Ann J. an. 21

The four Gospels concur that Josus died on a Friday at the time of Passover, which begins in the avening at the stant of the Neventh day of the Jawish month Nisan But the Book of John public the crushborn at the day before Passever, or the fourteenth of Nisan, whereas indicate that it took place indicate that it took place

The latter data, though, is based on an interpretation of the Lust Bupper as a Passover meal it is more likely, say Humphreys and Wootngton, that the supper was a pro-Passover medi-supportably since the Goapail accurts make no methon of the wave of a Passover lamb.

By reconstructing the lines centrary www.in calendat, the need and have brand that the bourneerth of Nace toil on a Protey in a biological that case for had date (the years that the threeff of Nalen came on a Frailwy—kh 27 and 34—are considered too sary and too tale, respectively both onk to tale transformation.

For the r final deduction humphraye and Weddregton humphraye and Weddregton has been overlooked by other activities relevences in the Bobie and the Apocryphs of the moon being of the oround year of the apocry of the oround year of the mechanic of the moon in exchance of the moon which appears red boosuse in a duringet detective the surface to the the opposition and the opposite of the the surface of the theory of the surface of the theory of the surface of the theory of the surface of the opposite of the theory of the centre and theory of the theory of the surface of the theory of the theory of the surface of the theory of the theory of the surface of the theory of the theory of the theory of the surface of the theory of the theory of the theory of the surface of the theory of the theory of the theory of the surface of the theory of the theory of the theory of the surface of the theory of the theory of the theory of the surface of the theory of the theory of the theory of the theory of the surface of the theory of the theory of the theory of the theory of the surface of the theory of the theory of the theory of the theory of the surface of the theory of th

Astronomical calculations show that the moon was partially aclipsed as it rose over the horizon at Januasencircles such approximation of the annual sector of the sector of the finite encircles and the finite encircles and the sector of the sector

-Dired Drea

With women who do not ove up, as with the meaing " the knowledge that there is no hope left does not prevent our continuing is wait for news "

-Marcel Proust

"The moon is more useful main the sam, ance it shrees during the right when light is needed, while the sam is of stille use during the deptime, when there is light atowar."

Korean Protiers

OSPITAL STARVATION

If you are sencusly if or injunati, you may and up starwing as woll. Surveys of south-care hospitals have lound that between 25 and 75 percent of patients are methourished, depending on the type of landss and the type of landss and the

"N a not that they're being deliberately starved," expleme Or. Bruce Bistrian, an associate profession of medicine at the Harvard Medical School. "When people are ill very often they won't or can t or shouldn't eat."

Mathouristment can be caused by simple starveton-the patient doesn't as enough-or by what doo tos call metabolis response to injury or infoction

The most common reason sick people don't eat is that they don't want to "Loss of appoints is an almost universal accompanyment of theorys" On Bisthian says Bornetimes the starvation is owned by the care. Texts to burn glupper for energy and to use emino acids to repar themselves. That means the injunic person con est normal guantties of lood and all author from mainourstmant

The good news is that people can go without food for five to seven days without if effects. And the majority of gatherits region they would as they recuperials. Those who don't can be force-field, an unpleasantly innerse procedure but



Beovern 25 and 75 parcent of patients in acuta-care hospitals are sterving. The most convision problem. Sick people dan't want to ear

surgery, and drugs can all eclos apporte or make asing encoasitie. Preents whore threases involve may be unable to east or her to unable to east or her to worn if they do eat "When patents have a metabolic tespone to mupindicate the top exchange."

or infoction, if a their include uel cells that won't "aat' crosperly. The stress of a roking—major burns, major surgery, sulo-socialent injuries, service infection impairs the cells ability.

a Tional Masayer

To feed the starving, you have to know who they are. Most university-off facted hospitals now have nativland-support programs to damity the maincursteed At community and private hospitals, Bistnan seys, "the oatch as catch can."

- Leeb Wellack

"There is always one moment in childhood when the door opens and lats the bution in "

---Gratem Greene



KIDS WHO HATE PUPPIES

When you think about children and animals, do you emission a smithig child warmly cuddling a puppy or lutter, linked together in youthut, investigation?

It is uteric open, says a five researcher who claims that children and ainmats are not natural companions and that our outual searcharben of very young onches to annualis and the relationship of very young onches to annualis and hot only incomed. but may feetra a diatorta uniter alianding of the related of young popelie

¹ Stephen R Nielen of Neientyrate B Klobel of Foresty and Environmental Robes, carries to Nation charan the rowering a Neither State State State (Neithy Sung Distance, Neith, weithy Sung Distance, Neith Mentyroung of all challen in their atbudget soverit dis suppress of any question with regression support the magnetic support the samples of any question the avertigeng and deeness of people in the solution.

For example, 37 percent of the second-gradient but only 16 percent of the deverth-gradient, agreed that "tomatenes people make at do what they went Phycose people went of the statement." If hey shand on where with anneats two we would have to get the oil, went if themat the anneats the sent if themat the an-



How averal. Unity how animals

of the eleventh-graders shared that view

Kellent says the study, genneered by the U.S. Finhand Weldie Sarvoe indicates that deutochen and aspanness, not innate sanderty, and the keys to a child's deweloping mon partirue attructas. Kelsint portirs du that the children a concern for that welfare ports aut and that motessed dismissionally by the selewells guida.

Unfortunately, says Rollet state and lederal agencies are convertely devoting ' a pathetically small amount of atsetion [lo] the broad with the-aducation needs of chattere '

--Peter J Ognibene

"Silence is not always text, and it is text that is polder, not silence."

-Samon dutie

DISAPPEARING METAL

Now thera's a haw alky that looks and behaves like a metal in every way but one. It disactives in water

hand into a single company in Bow. New Hampinne, devide of the strange new material by chance the researchers were trying to improve the classity of a guin that sprays metal over a guin that sprays metal over each or vecesion mitidels to form hand alloy molds to screab the optay the guin dominant were for account the optay the guin dominant were

One day, while alternang two days, while alternang wasa, the gun formoid a mold that to the researchers surprise, waared away in woor Seral parts reade of the sloy display in woor sloy display on motion group of highlogen bucbles. The odd metal is a matcher weak the common cather mol the common cather mol the common cather and cat



Elevers detarn A gun jou

Having laid patent applicaptor, table president Nerki Thorpe a left web the generation of what the solution install imph be used for Other than handoutla for pation Housine, overyday uses clon | seem obvious but Thorpe regards that the full applies are appliand second development hubdes are under wey by several bohrefic customers

Pipe engreene could use the alloy for instance to replace the nee-paper object that kong inner pass inside stoal pipes while they are being webled for nutione macrosting. Unlike hose paper, the metal would's to option the second build would allo wash out after to wold wash out after

One suggestion is that soluble modes as the they adobte modes as the they adobte modes as the they adobte modes as the they adobted by operating a thoback of the they adopted at the they adopted at the they have a the they address the they address the address they address the addres

The future is a great and, a man cannot go asound it is a day, he cannot measure it in a bound, he cannot bind its hervest in a single sheath for water than the vision and has no and "









WONDERWORKS







B Into the latest on plotography, firearms art & music—e1 A breathtaking record of the dinosury era. (A collection of award winning articles on firearms, "A marchitem collection of Michael

a) the solves press does not be information of them. b) An optimistic bluegent a future, e) Four mediage, ready-to-run uber advesture games, el A guide to ig the most out of the standard fing system for the IBM PC and 69 personal corregutors.

Whalan's science fiction & fantasy art) 24 essays to strike sympathetic cherds in our minds.

Waldenbooks



When President Reagon fock office in January 1981, many

In the solared community resident and solar solar definition indented and advance on the polarise frant recommended a term motify certer that the Network Solarien or consider a solar displayment. Budget Dealers and groupshim-solare of term and groupshim-solare of term certerino- to be invested of a watch of a hot in the motifie or watch and the the budget of the policy of terging in the all

Interferenze, many assembly and code campo control wells the origination of the control wells the code campo control wells the code campo code of the code of the

Edital Rodget newsrehy oras balan rodatoria 1 workd ray fast the alternative restance rodatoria balan rodatoria pesadarea da rodatoria community applicado filo community appl

The control of the process of the second of the process of the second of the process of the second o

REAGAN: THE WORLD OF 2000



The President says that computers, robots, and bioengineering may change the way we live and work—but won?t atter wenerable human values We heard it suggested that in the future, instead of commuting to work, some paople may be computing to work?



wara offered a side on the shuffle, he'd ask someone else to take his place. Who would be send? An aspring youngstor

Received to be used to be a set of the two of the two of the the two of the two of the two of the the two of the two of the the two of the two of the two of the two of the two of the the two of two of the two of two of the two of tw

Figure 3 doubting entry a treat strend store to Starting the other stores in a constraint of a manning sharping down on the first reference of the down of the the strend starting the stores of down of the the strend starting the stores of down of the stores of the stores of the stores and starting the stores of the store stores of the stores of the store stores of the store stores of the stores of the stores of the store stores of the stores of the stores of the store stores of the stores of the stores of the store stores of the stores of the stores of the store stores of the stores of the stores of the store stores of the stores of the stores of the store stores of the stores of the stores of the store stores of the stores of the stores of the stores of the store stores of the stores of the stores of the stores of the store stores of the stores of the stores of the stores of the store stores of the store

What follows is a denialed and frammating view of the Reagan administrator's science-and exchanging policies and the Prescients rev publicks for the future.

LIFE IN THE TWENTY-FIRST CENTURY

Griver The these for our Octuber issue is love, work and play in the twenty first century. What is the single most significant change you expect to see in patients of work in America? How will the change affect human relationships and recreation in the century alread?

We save that trand today in the way Amercians are responding to the industrial chainlenges from storad. As a chainback work and showing our commitment to producing subparticipates and services. When work and showing our commitment to producing subparticipates and services. When work and showing our commitment to producing subsk shoul "quarky time" with our families, when desceiving the sublaction of quarky time on the work.

Their pride in performance is already spling over into our private lives, for We see it oppicatily in America's new oldertimation to educate and man young people so they can take their pleases in a changing workplease, e workplates when they? to do, people not necessarily to work harder, but is work strender.

Firstly, I don't see how those kinds of emphases can help but errich the quality of people's relatorships with each other. Recple who are essential parts of productive en-

terprises are simply, happing, batter-aduated paople, paople with the inner strength path to cope with adversity and to reach our for help others. And isa for twarty-first consury recreation. Intend to stock to honseleck adverse addression wand.

Owner You've label of your conventment to leaping Amorica "the technological leader of the world new and into the teenhy-first centary. What specific new plans would you have—if you win redirection—to balliar our leadership in technology and build a foundation for the next century?

Peacen, I cen't think of anything we could to the would take proppy moast on our tinue our emphasis on developing new knowledge and on training now technical talant Many people dont realige this, but over the past lour years were increased kinds of studies done in universities-by more than tifty-five percent in fact, one of The acharyomants of our administration final newed emphasis on university measurch new plot ______ as the booming microeledlactachinglogy inclusitios of tomorrow (But sust as moonlant that university research also creates the training ground for our next genesalon of scientific and technical leaders. this tectoral emphasis on support for the most

This is should be protify device to reven that labelarity to moore observit withoutcarry transfer into labelarity in industry that labelarity to moore observit without labelarity the pavement carring prorised cases in this with mod out in industry tar carried to the state of the second transferring the pavement carring to an industry the pavement carring the mod cases in the pavement carring to the state transferring to the transferring the second to the second transferring to the state of the second transferring to the state of the second to the subserging of moalesh down in the second to the state of the second to the second to the subserging of moalesh down in the second to the subserging of moalesh down in the second to the subserging of moalesh down in the second test of the second to the second to the second test of the second to the second to the second to the second test of the sec

But provide a block and a second provided and a second provided and the second

12 DMN



Sit down to a special feast of old, bittersweet memories dished up by prating parents long dead and burned

I SUPPOSE YOU ARE WONDERING WHY WE ARE HERE BY FARE BRADBUBRY

The restaurant was encyty when he armed 2 was only as object, the big convel, if they come, would come base which was particle, for he had a dicore bury things to do. He watched his hands by out the reprint on they base, the unitings and searings the wire glasses, then paion and testore the knows, thick, and space are the hereal was the maha of or some and full and any society.

He head tensel mutering under his breat, and part of the time it was a sort of mindless chart and the rest an incartation, for the really clight know how to do all this, but it has to be close.

> PAINTING BY RENÉ MAGRITTE

He turns of opened the wine while the owners of the redautant stood in the back whispering with the chall and nodding at him as if he wine the manage in charge.

In charge of what he was not quie sure His own Mr? Not by half Screetimes not at all But tonight one way or another it would have to change. Tonight might at least give here a law provention a little policie

Ha pound some whe into a glass shifted it spped it eyes shull, wailing for the tasks All right. Not great, but all right.

He reasonged the cultery for the limit time thereing / have two problems. My daugh hers who regin as well be Martians living on Mass and my mother and father, the growt est problem of all Because they had beam chad for wheth years.

No makes if he proyed, if he larged as britly if he partnershed than with immeriawill, controlled than with immeriaand knowing his hearshear and resilies made knowing his hearshear and resilies made is a solid scorehow recycle their dust area wells stored large her registria semanalis three blocks and stop matter-of-facily into the collar resil and an in-

God / herven herven had a full glass of ven yet he thought, and turned abruptly to step outside for some tresh air

Out in the automair right with the natiliau rant scream door halt open, he stared down the dusleng street isoward the growsyard pater the Atricet nakly He was that is but were they? Was the time right? The repairs placed the cullery stranged in symbols of need the good wire waitingwould all of it suly don'te eb?

Cut, cout he thought and turned his gave from the far gaveyed eritence to the nearby phone booth. He lat the screen door shut welfied to the booth dropped in his clime and chilled a founds?

His daughter is voice sounded on the an svering machine. He shull his syste and hung up shaking his head not saying anything He tried a second number. The second daughter simply duth amover.

Hishung up took afinal look at that grave yard off in the growing dark and humed back inside the restautent

These he did the whole thing over again the glasses the naplikns the cullikry Touching, recuching placing and raplacing to an graphical iomake all the objects as well as henceft below.

Then he nocided to tenself and sat down stared hard at the cullery the plates the wreglooses took three deep breaths shut his eyes concentrated, and prayed very hard, wathrd

He knew that if he sat here long prough and wehed herd enough---

They would arrive is shown greet hem as always, his inghet would just hem on the chickle hes faither would greb his hand and lighten on it hand. The load greetings would at last quart cosin and the liait support at this cost to we restaurant would highly becan.

Two meaules passed He heard has watch



toking on his wrist. Nothing

Another minute passed. He concentraied He prayed His heart sounded qui eth Nothins.

Arather meute He istened to his own breathing Now he thought Now, dammit Come on!

His floart umped

The front door to the restautant had pened

He did not look up he trapped his breath and logst bin even shall

Someone was wafking toward his table Someone arrived Someone was looking down at tem

I thought you dinever invite us to dinner again said his mother

He opened his eyes just as she leaned open to kiss him on the brow

Long time no see! He father resched out second he hand and grapped it tight "How ones it Son?"

The son leaped up almost spring the who onto the table

Fine Dad Hi Mom¹ Sit down my God oh my God sit down?

But they did not at down. They stood looking at each other in a kind of starmed bewidement until

Don't make such a luss its only us said his mother. Its been so long ends you called We---

It has been a long time. Son . His failter was still holding his hand in an ron got. Now he wriked to show it was okay. But we undentand . Youre beau, You okay Boy?

Don't be embananeed. Son' said his lathar. Ware graat. For a while there it was buigh i meen it was all so new How in hell do you describe if "thu can't so i went-

George for goodness sake out the cadde and get us a table issid his mother

The is our table said the son porting at the empty places. He suddenly realized he hed forgotien to light the cendle and he did so with templang hands. St down Have some wind!

"Your father shouldn't drink wine his mother stanted to say

For God's sake "his latter said "it doesn't make any difference now

 Lorgist His mother feit herself in a strange lestative way as if she had just third on a new dress and the seams were away. T keep forgetting

This the same as forgetting you're alwe ' His father banked a laugh. People live seventy yoars and atter a while don't rotice. They forgetto say, Hell, Im alwa! When that hapners, you month as well be....

Vietation mad his motore

Looket of the way? such the father sating down and leaving his who and son standing. Before yourshoms even canditatil living is associated condition and alter you're through is a third. In each state, you longet to notice horsw. Her if mot hat beliese i mon second Well bell bere we are on third 'And ike your

'How can you tel?' said the son, then bit

But his father had not heard and patted the seat beade him. Come on Mal

Darit call me Ma I m Alice!

His mother slid in on one side and the son

for gothing, and high brightly patterned arwith tengenins stripes and on his head he wore a cap with a broad brinn made of some

You look great: Dad Mom-

wave a bitar and white alk deas with a light aging flappers work, with ruby stoleping those through to hold a bolt to her meeceded carls

Where have I seen your out/its before?

But before they could answer he remem on the front lawn some Memorial Davior July hind them sourceing out at a noon that would

Right after Baptist service. Easter root 1977 Wore my coll cictheal Malhad a M

Nothing Alice Ma "His tabler ret lecting class built is true severa he son watching get used lost its not the hard stuff though Whalliev is more like it. Where's the menu?

He taber took a long time angling the

What's the French stuff on the las? he aned. Why can't hey use English? Who do

underlined saveral rams on the menu with

"Hell ancested has father storing at the

Pa, said his mother, sust rend the Engl

"Always had trouble choosing. What's

"Your father' said his mother "has always

"I semember seid the son quetly and circrichis wave. He helt has breach and all will latitiout "What I you have Mom?

Mam used the soft it's no trackle There

"No, site said and put the menu down

while you're waiting, take some of mine. The

Watch your loat, said hearmother

"is that a threat or a toast?" saw his tailway were not taking about the trings he most dearly wanted to talk about



NO TWO ARE EVER THE SAME



12 ISSUES OF OMNI FOR JUST \$23.95!

E Please enter a gift sub

OMNI. THE PERFECT HOLIDAY GIFT

No other magazine crystalizes the events of today's changing world quite like CMNI is a tris holiday, make the most of your Christmas present Use the attached coupon to give a giff subscription to CMNI Not only will you sove more than 85:00 off the regular cover proce, but your thinnds will enjoy the added giff of home delivery.

SENDING YOU OUR SEASON'S READINGS

Bit Starting Sta



tastic is the difference imporwell permit us to build large. Earth like space colonies to for entils base. The engineering rum and class Many of the manord maneuvening units.

boing explored, thenks to the Space Studies Institute (hereafter called the institute), in Princeton, New Jersey, Over the pest dwamps, mass drivers, the chemical separation of lunar sols.

sary asue, my assorment was to revisit one of the oldest space

High Scotladale will soon delebrate its own twentieth annuof the most desirable English-speaking communities in space

No traffic. No bugs No smog. So says one visitor's chronicle of THE HIGH LIFE IN SPACE

BY GERARD K. O'NEILL



colony is standard "latend One, rossos on its axis happe per minute At the equator where gradually Yel, enough light a lights from homes and reateu-

all visible from nearly everywhere inteids the sphere, so in my week's stay linever found a right as dark as we have on Earth its quiet in High Scottsdale-there are no cars or airchanes-and small enough for people to walk on winding foollootoatha hava atapa, lika those of the mountain villages in Italy or southern France. The largest vehicle I saw was a building music and the songs of birds High Sociatives orbit around Each takes three weeks, which

means it is closer to Earth than the moon is. That orbit provides

PAINTINGS BY JOHN BERKEY
to one of S23% like/like, and after netry 752 within of employee dock-polary similar of employee dock-polary similar s

Now that the United States that the fact and the United States that will have the States and the Linke the Mark States and States and Linke the States and States and States and the States and States and States and States and the States and States and States and States and the States and States an

We cancel upth easy in other the reverber and the transmission of the revertion of the transmission of the transmission of the transence of the transmission of

In 1999, a rotat passe preder make a chraut desovery, poports of water to a rd autoraceous makerel weekel in the particular pack. The avery fears are the poportion accuracy the new particular most than 50 pack the avery fears are the poportion accuracy part to a make of the sulf here is, but here last week make of the sulf here is, but here last week to be a subticular pack and the subrace of the subrace of the subrace of the subticular back to be a subce of the subticular back to be a subrace of the subticular back to be a subce of the subticular back to be a subset of the subticular back to be a subset of the submost of the most of the subset of the sub-

Copyright © 1984 by General K. D'Nell TH. CMN by obtaine head early in the heatory of the earler system. Cross the disposition of melianitic apation, introgen and hydrogen were board and emission of wow meliable were about the place in two meliable melia planes about the place in two meliable melia planes about the place in two meliable meliable about the place in two meliable about the place. The place about the place about the meliable about the state about the sta

At the processing plants in space, the plastice is grown into a cell mix wher plants, can grow in and live ins. That accounts the thealit uses and he not vegetation of High. Societable and its same obtained to bottlet channeally locatly and use for her to dread planter of hyperagram in the plants to bottlet channeally locatly and use for her to dread planter of neurospin knews ind in 40 planter or origin by weight is an id locates in rolates ban? Toolis bottlet references.

Captern Kimura trat became interested in space travel during a tracto file. United States har tamay had visited the Derrey World UP

The lights from homes and restaurants are visible from nearly everywhere in the sphere. In my week's stay, I never found a night as dark as we have on Earth?

COT Center in Fionda, where they book is inde insough aspace offery in the Centeell Electric parents. The cadery exhibit had opened in 1960, shortly before Kiristets twentels bothiday and was based on blacprins supplied by the instale

Remula suici High Bootscalaios residents are low key Gardening ete cesid is one of their mein passons And I waald find a considerable number of lounds there expebally residents of new raw colones, who find been vesement for a well who find beds.

After a new sky role we obsided there we well through the observement of the sky the test graphenerment was one upons a PEder to a speener or not to ope them assignment for therease, was about to go on offit. Becouse assignment more the sectory for works to assign the more the sectory for works to assign the more than the sectory operating to assign with the sectory operating the grade work of the sectory operating the table operating the sectory ope

recessery in the colonies because no bevacid mosquitoes of ties had been broughalong from Tashr. The task purpose of the endy checks, the said. "To keep out the bugs and agricultural peets, is case they make it trouch the combactmics checks at PR1."

More times a current tale is to be here in we concluse these products of the product of the prod

After a Sommute high covering 100 miles we describered at Bachelis contribution parter A relation took over the consoles the stati of the previous shift boarded this transfer card and Mostime kild me to a large www.port Picen there the project filed raif of the stary stir.

The rest is a start of the star

To show Bechleis automated construction methods. Moonsterw used his home eral views of the mean colory sphere II is tormed as a single monolithe shall of alu evaporates onto a fain form. The process well take six months, oww mosts being reacto will be unusual only in the large size of ing the sections out of glass panels, steel web, and Manum cables. The job is complex enough to require the attention of Moon shaw's stall which monitors operations from the control parter Moorshaw's main resconsbility as long as his methods don't break, is to achiectule the flow of materials. ciecide on sfall assessments and finally to oversee quality coolini.

Note the parent and artist in the main term of the main and the sector of the term of the main term of the term of the sector of the term of the sector of the term of the sector of the

The the next is how it high qualit that we have been been as the term of term

Dario Shveais—populate of Shveath's located on the parthink in the Sootstatie poorple coef the High Constraint-inse built up a thanning mass by combining good food fine writes and his own personally. His to gate pebters: I harmed, were outcutly deferred tom these of a resolutation on Earth Over oochasis in the late afternoon, he hold me about them.

"Find chill, he said, you have to understand the Auge differences between the prose of domissic and reported wines. It have no high Sociación We make very good weres—their hever a bady you—and I can sail at matomable proces. But it a customer instes on avery lever abady you—and I can have to point to the procession of the wine left her of 11 hever bad in the "."

Instead of hewing supplies delivered. Sifvests spends more than four hours every day visiting each memby colony that raises free 30 GeV meat or grows produce He returns with the retrigrentied to device on this spatial orbit charmed with the bost solution. He boys fick and lobster many from Grand Betterns a colony only ten minutes digit time away But because the Japanese of Minam to Stima provace he beet shellish in the colomes the into stage than

After the intervew, when Studiit's was getting crowded and the nose level of the convenience pickes up 1 related to the tennace to have my climer. It was a worderful mest Steak Dawn, some winn vegetables, and a loat chesse---al with a botte of Sweet Water Vineywords 2015 celeared

Severative Days term Aloca McDeven, who mice a lamely lamit on High Boottadie with the help of her registrem year-old aan Kirven Aloca got her digree in agerbildural orgmassing from the University of Ascons at Topon and moved to High Boottaliak lan years age, Jahr her stored Shot gone back to Earth only once anoral than Kowins tahter a harb school beckher senarated to a markher to harb school beckher senarated to an markher a harb school beckher.

There were a considerable number of bounts in High Scattsake, residents of new, raw colonies who had been yourning for a walk in a genuine formet.⁹

extern two years later and Alto fords that to move high obtain participa to do a behavior get of merry Kown. Bishina taxad coast to Sowin and his bishina terzi an toust, andwently only by valuations. Nave Kown of som makes weekend values, and fabre and som makes weekend values, and takes where keyen obtains the interproteins and alton where weekens by the descents and where the tax south tax and taxes and the solution.

The McEvers optieth a problem feet indice and i version on Earth. This is not our litter the McEvers horse on the McBot Coutering. Them Alow McEvers months: terperature humidly coll cooling to it were reftring and the McEvers indices and the most along the ring. Het fairting space dig along were along the ring. Het fairting space dig along were along the ring. Het fairting space dig along the provide the space of the distribution of the distribution of the space of the distribution of the distribution of the space of the distribution of the constants of the space of the distribution of the constants of the space of the distribution of the provide of produces of sources of the provide of the provide of produces of sources of the provide of the distribution of the space of the distribution of the provide sources of produces of sources of the provide of the space of produces of sources of the provide of the distribution of the space of produces of sources of the distribution of the distri And Carlo washin too toom usi the quality weren't high "Whom we valked the ring. Now was repropertiming the weekles, annuaing to grant that don't have the ring it meght or leaf pattern blocks and out the ring it meght with no patts, and your toom too the pattern been deboarday initiation and the real that uses metaboards. But also a calculate in too dow has tarm to a value from that have in we that stands tarm to a value from that have the dow has tarm to a value from that have the lass status that the second on rand.

My bas way of vacors is the heigh home way of the second s

Wetherspectra inclusions present one age as institutionation and testified non-a stratucardination comparison of the union With the stratuce of the stratuce with the stratuce of the stratuce with the stratuce with the stratuce of the stratuce with the stratuce of the

As Westington publication way own Thin delivers mark to first of of narrow 27%. Latitude accords marks to rescale this marks and the second third the control marks and another hour to out the control thereins and another third to part the control thereins returned to the latitude and incomthem Washregion and a Latitude page another Washread and the cost of the control the returned to the latitude to be cost of the second table. The second the second table and the cost and the little of the cost of the second table and the second table and the second table and the lateration of the second table. The second table and and the work program that Washington and Latitude to do it.

Back on Earth- scarning the night sky. I think of the preceful optiony of High Scottedate—mvsable at this distance, but nevertaskess the straing manifestation of plane drawn decadres acc DCI





called gas ionization, chiatea what looks the lightning but is known as a plasma. Plasmas clorit obey the laws of solide, passe or inputs, stys anist Bill Panker throy two, a phys-

Iciti who attust twenty was a full fellow at MIT's Center for Advanced Vasas are "what file might sculptuss are "what file might be like if it were made of pure energy"





 Plasmas are substances that are npped apart, forn asunder The gasbag model of the universe's origins has these same interactions ?



H citat n the base but ground as the end of the base but grounds that impairing the waves Beccelating item its arterna in the phenes certain based stope a watch on the allegence that the second of the second the second of the second of the allegence and the second of the allegence and the second of the based of the second of the allegence and the second of the based of the second of the based of the second of the allegence allegence and the second of the based of the second of the second of the second of the second of the based of the second of the second of the based of the second of the second of the based of the second of the second of the based of the second of the second of the based of the second of the second of the based of the second of the second of the based of the second of the second of the based of the second of the second of the based of the second of the second of the based of the second of the

the electric field trapped inside is drawn toward a natural ground using the body eliquids as a conduit Somewhere in the universe these things may be generated in

free space, "Parker ways: He set "published" by Visual Technologies of New Garaser. Connecticut, can be plugged in Ne one of Edeoris bulbs built itads a contury longer DO



dolla posicie for such companies as Weine mitianos interés uno AVIET à hypotal poioy usado cover any phasa no fina statilitate de la servicio no de la posemeré in creta la such a la posemeré norta. La tra Viel in apose-lite salore out inade si la referide value d'a salabile costa con buildod milion dólars, tra inguaperantor a la salabile value d'a salabile costa con buildod milion dólars, tra ingua para peranter a la salabile costa con buildod milion dólars, tra ingua more perantera a la salabile costa con buildod milion dólars, tra ingua more peranter a la salabile costa con buildod milion dólars, tra inguía more peranter a la salabile costa con buildod milion dólars, tra inguía mare y partos esta el a del na

But the nails are ingline tail in the Saked and Severtise the manual sate time the same time of millions of datase black to match the Sakedon Haussian (Lance take) the same try could eventually because back Then the backet power for the sate Barrot calls them backet power to be catastrophic. They the backet power to be catastrophic time any the care.

Indeed even now the space insurance industry is in disarray. No two potchs have been written since February—currently scheduled shuffe firps were insured previously And a low weeks after the Intelsal faiure one of the gants of the industry—the Orion insurance Company of London pulled call Other companies at worder whether they should not a same

We the space-insurance industry survive? Experts say yes although they're not sure exactly how Pramum rates may in crease appreciably for satelites adding millions of delians to the coat of each launch

"That could be very bad for the brokens' says Genatif: Finds managing deeo for of the brokwage tem of Mash and McLefam Inc." If we have several more tossis is could farce sales to the point where comparises might not buy any insumo?

Some basiens are looking for more permeant staketors the problem. One is to have monitorial companies assume a more assumable degree of the Mood communments as the doesn't assignment on the major look many current policies of only one dud to the twee cleans transporties in such the whole statistic as a word, of and the maxems caugh up times of millions of database the does assisting as a warge data of the maxems caugh up times of millions of database maxems pay in taked particular to the same or pay in taked particular to the taked base of the twee particular to the same of the same state as been the order to the twee to be the same of the same as been

Barrett would like to reduce risk by restructuring the shuttle program. Currently NASA plans to cerry up to faur commenced salelities per launch. That mekes economic sense but it also concentrates the risk. With as much as \$400 million riding on each shuttie the resurance industry would be leveled if a might shuttle burnch failed.

We suggest that they disperse the commencial sunches, " says Barrett. He belowes that it would be smart for NASA to indeh sail one of two commoncial satisfies to mittary or spenific mession.6

Another option says Bernits, as to annihsums with address locations information his company here engineers to accept with ourgoins of the incides and winnices to be insued and and an engineers are framed to analyze every locat of the neith. Whe next to presente the location of the next the weight of the same the same the location. The weight of an engineer the location is the phase of a space shot—and have a before themes of thesizing the outset.

Services interview of the saddhard sources of the sources of the service performed on the solar false in Agent, will be had the industry and ancourage prease interview in space. NVAs this proposed incovering the two last satelliaus auxement isom the shuttle list fragmary but not every one seas the as an answer

What is the value of a damaged bad? asks one broker He claims that when you subtract the coal of relieving and relutioning the sateflier its value is less than 20 percent of the onemail cost.

What we really need he adds is a year without accidents DO



EARTH

CON INVUSIO FROM MOSF 20

says Shelloy Schlauter one of those who helped astrotage the hunt.

Like many accial movements, hunter hareservent has noorefly spewned an extern met contropent as well. Called the Annual Liberation Front (ALF) this faction closen t harm people but does commet windelism against these who harm extends.

Were headon if gatars in the radical toni, coplans a woman known as Sanya in ALP member who declined to sevel her full name or where she was calling from Were out to cause maximum property damage and to interest the machinery of destruction and death

In the pairly wat Server claim, ALF more than their apply pairline in reverse as a centre on the table windlew in New Yos has been in reddal table and its attable area to the yet targeted that. They is taken in reddal table table in the wind restruction to table the table. These wind restruction to table table table table and in table table table table table table and in table table. The pair table wind wind table ta

But hotcors the actuels argue are reeentity because hith-end grain correctschools obtain to human including any entities have a second to became only any entities any allow heads to became only any any any allow heads to became only any any allow heads to became only any any allow heads to became only any any any endowed to site in a costral, on the unit endowed to a site any atrian offer hand, ammit peopletions would eventually even out to a state when

But maintifeerin conservationista diaagree Alan Wertz of the National Wildle Pederation says that habitat loss not hureing threatens wilcite

Last fail in Massachusetts for instance ter-and-gene obtails proposal a bair tart d a milup the paysore was to the put has held but the hurt was canceled after sevnic contentions with antifactes. At least court, an estimated 30 percent of the deer hert had starved

Aspartnerm put forth by Weniz and his cairliaguas have begun to prevail Ten status have passed laws banning huiter taxesment ment lien mare are considering the same Kuthermon, a bill pending in Congress Wold make crossing status (nasi in order to harials huiters a lifeden) come

"It is a volatile situation," seys Joseph Cliford, assistant afterney general in Arzona which passed the first such law in 1991. "We people out kw just to keep the passes."

But activities who say the legislation is in solicul, don't are it ealang an already tense situation. "It will only increase onli table dance," water Jim Marcon ector of Agenda, an animal-rights nevelator.

The hunters are the ones who are dang the hunters are the ones who are dang the huntersmark, a follow activit adds "What takes precodence? This right to foll animals or the right to save them? DO



For our sixth birthday. a six-sided, flat paper puzzle you can unfold to reveal the future

HEXPLAY



BY SCOT MORRIS

Bone revelops come from Ledy accidents Others was coming participant of the second s

The cursous object owes its origin to the trivial fact that lifetish notebook paper and American notebook paper are not the same size. In the fall of 1939, Arthur H. Stone, then an English grad-

PHOTOGRAPHS BY MANFRED KAGE

uas abacit do antizionato el Howeng un Prototo Lovenzy, bund that he field a protore will the notational paper call on carrys dos a professor of mathecarrys dod us what happened. Thad to call the standard American paper down to suis to little hermitistic and the field of the math of the hermitistic and the standard matheful participation. Thad some though one math or so of paper to day with i amatodia marging for standard with i amatodia marging for standard with i amatodia marging for standard with in the standard marging for standard with in the standard in marging is the standard of the standard marging for standard with filtered to the standard for work filtered.

This line closevery strated with a dissept to one one explaint impairs which what load been as a through the strategies of the strategies of the the property and the strategies of the rang. The basegies the log faces would make any the strategies of the log faces would make appear make the log faces would make appear make the log faces would make appear make the log faces when the log of the models and a make make any has were vehicle—to and before the repetited freque there is could be moved a succession of faces the log faces appear make the them to also before the moved as auccession of faces the log faces of the succession of the log faces of the moved as auccession of faces.

Had the shucovery been mide by some one also is might have been set aside as an among loy and longstein Bul Store was pat the man to take it sendusly. The rece shoe is one I am proval of "Some tests us Overraph I decode that one could obtein the timing up to to peek and one tailown again. The the instruction with all concleved on a secolar again with a software to comtent of the time of the tail of the time temple, which was word more to set one a last perturbative word more to set on a last perturbative word more that the with double the times of tail peek State I and the provide more instruction to set one of the with double the times of tail peek State I and the provide the times of tail peek State I and the provide the times of tail peek State I and the time the temple state I and the time the time of the temple state I and the time the time the time is the temple state I and the time the time the time time temple state I and the time temple state.

Stars included his discovery to other before and on two performance provides and an elevanic performance of the stars and automa Treatment of the stars and and and automa the stars and and and and allowed any the interference of the star allowed any the starbeness of any the allowed any the starbeness of any the calculation of the stars and any the stars of the stars and any the stars of the stars and the stars and any the stars and the stars and the stars of the stars and the stars and the star and the stars of the stars and the stars of the stars and the

Fayrenan now a protessor of physics at



the California Institute of Technology told us recently what those haloyon days of these gon flexing were like

Steep cates down one day with the thing made out of paper. It was suprairing "historating: As we extrated to total around with its we band we could make more complicated vesations using more and more taken. Some times you chose in from and their could'rit third along in twohed out a way of diagramming all the possible anismations in the source in the second anisma and the source in the second second second and the second second second second the second secon

Some sets hipping martiele a dagrimmate speakertaken of the way a fexagen tils together his model convertal the problem of likeling as a problem in ghtph hadry. We called it a Feynman degreen Tockermen derweit a method hat would guarnine the sou could alse a heatigon and field all he faces. It systematically traversed the Texame

An early of excerning to the lessagen commission and a mension without their goal will be based of a therapy to whithout their goal will be based of a therapy without their and enancies of the second second second second and based unblacking on terming if all the alime second and based second secon

Because the original discovery was made by Bryani Taketmin I hap attern of unkidlings on towarding the two towardings on towarding the taket of the taket the Taketmin taketmin and the taket of the taketministry of the taket taketministry of the taketministry of taketministry of the taketministry of the taketministry of taketminist

Marijevenacia registe inspectod by hearministry, hear apported to provinsivily borne of the more extension provinsivily bree baced three states that there is to a more approximation of the state of the states based of pages proved with set of the staodd outpets of halfwess. The meaning load is shared in pages proved with set of the state of approximation and one adopt (One Calessis Aurch 1985) When the number load of the states is a non-intervention of the difference is even with the Toogan in the even wheth these the orthorizing is been and the state into intervention.

As the number of desired stores increases the number of possible ways of meleng such a taxagen face in character proportion. The sample face is only and designed built taxa as there ways to make designed built taxa as there ways to make one with as laces 27 ways to make one with one toos 733 sensitive of 124 acold docle streambragers and hilly 46 538 ways.

As you'real the se-keed model in this insue you will begin to notice that it assumes, two different forms one in which adjacant transfere are either two or four sheets of paper thick, and one in which adjacant interples are either one or two sheets in tak. This revenue those that its

THE TRIVIAL PURSUIT SURVIVAL KIT.

While the Trivial Pursuit game shortage lasts, please accept our apologies (and a few samples to tide you over).



iurn page for answers



A CMM





5 All number-two taces (the people) should be on tap, and all number one taces (computer cecutry) on the bottom. Now your headlesappon is reach for fearing.



7. Simultaneouslic with your left thumb push obsert and in on the creates on the oppositil acts of the herafaxiagon. Grasp underside along oease using thumb and lorefinger.



6 To fee the Instead product prich togenerative two adjacent transfers on the right with thursts and ferefinger banding the pilper up toward you along the crease between them.



8 When the folds are sourced to pathot to make a these point size pull it open at the top so it looks his an unfolding fower built these it reveal the rend surface.



The diagram named the Tuckarrain the weste was developed by mothermitican byten fuckermen. It maps out a proceiand faces I lyou far the model from one side (without terming it over) this note with low you through all on them. If you happen to start from the other side, the same cycle with the bid is memore ander.



The channenge above show how the vancus elements or may face of a headlewager may change their owntation send the file-agons image. This image of the popole sente work, and the glowing-plasma set saincts for alw a you explore Christ Neositesiagen and discover difasers combinized with a space lock for other symbols of their the balane Write sa above what wou have found







FICTION

Before the eyes of a reluctant myslic, past and luture mingle on the carivas of the mind

THE VISIONARY BY URBULA K. LE GUIN y mother and autor tead that when I was learning to bill, I labels to people they could not see or and cometimes segme which or meth they doubt not see and cometimes segme which or meth they doubt not continue they people and the a noon was entry or were arways people of different londs, everywhere Mady was always people of different londs, everywhere Mady they stared output, or were anyoutput about the domas

PAINTING BY MICHAEL PARKES

or passing through 1 had already learned final notocity taked to them and that they did not often pay head or answer when 1 hed to talk to them, but it had not occurred to me that other people did not see them.

The set of public derives the constraints of the set o

When I turned away from all those people that had used to see they were an and de not come back. Only a few were left and was lonely.

The D success of the three C-bar of the success of the three C-bar of the success of the three characters and the three characters of the success of the three characters of the success of the three characters of the success of the

My chichaod was ake everybody's, are cept that with going to the Doctaris Lodge and waking with my tather and liking to be alone perhaps I played less with other chitar. Gene One thermany environment and leave the advectory of the thermany environment and the control leave at the ways and house we meet well of advectory and house we meet well at advectory and house at the leave the leave

 Electricity is Ne horses_crazy and will/uf and also reliable. If you are careless and running countiny, a horse or a live wire is a contrary and perilous thing ?

Isobad section and sore as if now whole or weaping. They would go quality through the tuesh not isolaring all it and never speeking, going uptiver which is see them invasit slaways say the four heyas. The way heya wert, alistify grapped as my heart. They were ter form mo watking in sorrow.

When it was nearly teerlee years did, my coases name of age most the teerly gave a very big passage party for the giving way alreads atthings of doth years how we had the inference of the second second teerly the advance of the second second teerly lawareness as an ideal teer or public lawareness as a second public lawareness as a second lawareness l

I had never been on honobasiti The boys and pairs who note in the games and races for Telvas bioogin: a steady mane for me is note and boosted me up to her back and put the nam in my hered, and of the weref. The like the weld sears. That was puse pay And I could stars it with the other young peoplewe were all parest by the good. Beining of the party and the exception of the party large party party and the exception of the party large party the exception of the except

It was a long time ago and not his tault or doing, he did not know it. The word I write is my writt to mavelliet it be brought back.

So the Summer games were over in our toen and the horse riders went of downtwer to Maddinou and Ourmain and here I was a thirteen-wate did werrain and aloct.

I were the paragraphic activity of two been many and the set of the set of two of two

Once when I came to the Obeview hyperastic a Blood Lodge singing, a worken I houghther old then named Mik met me in the passage She looked at me with over an sharp and bled as a makes eves and said. What are usur here br?

Tanswered her. 'For the singing,' and hurried by, but I knew that was not what she had asked

In the summer I were with the dancers and indexs of Teina to Chusumas There I met had bey. If be young men. We taked about the rosen home and about the line moonhome. I was refine a net evolve games When he stroked the seen home a flank. I did so tan and the side of my hand touched the side of his hard once.

Then there was arother year until the Summor games returned. That was how it was to me. There was nothing I cared for or was mindful of but the Summer and the games.

The dd horse doctor cled on the Instinght of the Grass I had gone to the Lodge Repang and learned the songs I sang them for him After he was burned i gave up learn on him to Locald not bilk with the annals a with any other poople is own rolling cliently and lettered to row it level back to working with my bitrat and i node in the parent growth and the second second second second dese gravitary for cardy, and amongs assumed with them seling waveling. That's were assumed with them seling waveling. That's were not and second in the work if also with the All nodes were empty. Nationally well in the about well-add current diversion.

When the sum function such it the damotes and nature came again hom Chubinsas to listina and i node in the games and saces pending at logarin right is the field. Noopla each That gift is in lowe with the rose about to instantiate with the rose about to instantiate with the rose about to instantiate with the lowe field into parts have what we's wrong the world into parts have what we's wrong the world in parts the land to the land to the land the land to the l

In a few days the ridlers werit on to Maddroou and I staviat behind

Things are very obstrate and inclutorin, but also there is a weet whitegrade in them. They offer what they meet Electricity is like horise crazy and will and also willing and readed if you are canview and infinitiread perious hang. I but man is those will be and perious hing, but man is those is a contrary and perious hing. I but man is those is the set seven times has you and origin latited a live in the web of a boost by memory. bad connection and not grounding the wreat They smelled the smokes and put out the line belows it do much have. Dut my dather who had brokught me into his Art as a norice was so alarmed and impry field he lostbade mis to work with hen until the next Tany seeson.

At the Write that year I was fifthen years of light outsit the first time it was fifthen years tool ight outsit the first time it was fauld toxis is awn 50 was tokined tight built possit actuals again bases tokined tight built possit actuals again bases tokined tight was first toking again bases tokined tight built built toking again bases toking and bases when every avery also take area for a base within any base toking and was any first base that the duras, and havin davin about base that the duras, and havin davin about base have welver the tox davin all the base that the duras, and havin davin about

I drank the test bable and make solved by any start happend to be of the solved by a origin task happend be of the solved by a rank who before actively. I make the test in the days and solve and the test of the days and solve the test of the test of the days and solve the test of the last of the test of the test of the test of the had conservation of the test of the test of the last of the test indicates of the test indicates of the test of test o unayed optimizing when inshould no longer of the Consequence matches the should not longer of an experiment of the should be approximately a the should be approximately as a should be approximately the first built of the should be approximately and the should be approximately as a should be approximately with woment particular that all should be approximately as a should be approximately the herein set when include and beap and the should be should be approximately approximately as a should be approximately approximately approximately approximately the herein set when include a should be approximately approximatel

Insist the vert the vert The target neuron of involving that the vert The target neuron of involving that the vert target neuron of involving that the vert target neuron of involving the vert target neuron of an extra second target neuron of an extra second target neuron of involving the vert target neuron of involving the invo



To us, it's a technical breakthrough with 23 precise, reliable parts. To you, it's just a flick of the Bic.



better to go after the Sun was danced Thad never danced the Sun as an adult and T worked to do that after that Told involt 1 would go to Chukulmas. All along Tarew that if 1 went or if 1 did not go if did not matter and all wanted to do was to de

It is hard to say to yourself the where you winn to do as due housease haring it befind other things, which you precend to want. It was impatient for the Twenty One Days to begin us it my the would start over with them. On the eve of the first day. I went to live at the heavtow.

As soon as I set toot on the ladder my hashwent oold and tight. There was elongengreghter regin My lage point-with and my visce would not come out of my throat. I wanted to get out and run wave will right, but I did not know wilker to go.

Naxt manning three groups formed. One would go over the northwest range into wild country in searce, one would use homp and multisorms for trance, and one would drum and long sing.

I eouid not choose which group to join and this classessed me beyond wrything. I begin shakeng and went to the ladder but occiding lift my foot to climb it

The old doctor nerred Gal, who had tought me sometimes at the Doctoria Lodge, came down the ladder. She was coming to ang but the helpt of her art distracted her and ther observed mile. She tunned back and asd, Are you not wol?

Levek Lam II

Why is that?

"I wart to dance and can't choose the dancing '

The long-singing?

My voice is cont

I maked of them

The icurney?

T can tleeve this house? I said loudly and began to shake again

Gal put her head back with her chin surviin her neck and tooked at me from the tops of her eyes. She was a short dark winvivid woman. She sed. "You're sineady atratched Do you want to break?

"Maybo it would be britter."

Maybe it would be better to relax?

There a choice made Correction "

Gell took my hand and brought me to the dearway of the mittost soom of the heymoswhere the people of the inner Sun wine

I said "I can't go in these. I'm not old anouch to begin the learning

Get and "Your rout is old." She said the arms to Black Oalk who carrent from the give to the doorway. This is an old soul and a loung one, strending each other too hard."

Bisick Dail, who was then Speeder of the Sergentine spoke with Call built have not being to the the source of the sergence of the we had come into the doorway of the inner soon my hard lifed up on my head and my easissing I saw reund, brightlights coming and going inside the score where there was no light but the dim shift from the topmost awards. The light based have Back Owle

The traches?

lumed to me and spoke but at that time, as he spoke the vision becan

I and not see the men Black Cerk but the Bergatrike II was a rock present indimennor women not human but in shape like a heavy human being with the blue, blue, gleen and black colors and the surfaces a gleen and black colors and the surfaces of serperine rock in its skin. It had no have and its eyes week lides and webruit to repayneys seeing vary slowly. Sampetine locked at me terk dowly with hoose rock wes

Lescohed doern intern Louid nei wege or soeder oftander of more I was like a beg full of tern All Louid do wes oreach here i could net bekelde all und a some mergete Serportnes herd snuck my head a held doer on the optimus and hort wer moch fuer on the optimus and hort wer moch bean and with that I ouch beet again man and with hold Louid oreas in held bean house did net bladd what in had bean house blad board werken is here

Lonschied, moowmang from the blow and the dozense, and after a long within blow does be a set of the set of the set of the freed set of the set of the set of the set of the recent set of the set of the set of the set of the advant free set of the set of the the advant free set of the set of the the advant free set of the set of

It was not tries a nome in was soon and t was not there was no light or breach or nomthink her not of the vector all took place or the science that is where it all happened and was but because of the human way human people here. To seen things, it seemed to change and to be other places things and benos

As if the separation rock had ourreback and decayed who has a work of and had been load and an and the second and the second had been have the drift had the second down i could lead if in a way that was like streng, taking down and also me out of a sky that was all ear.

I would go to alwap and then be partly avake again pototwing. I began teeling stores and accets and allong my left sold. I began to fael and hear cold water running, a creek in the remy season. Yons of water underground send soon and incortal friosoph ms to fail and sold appropriate and incortal friosoph ms to fail costs. appropriate fails from the bit and etones.

Their fire content. Large to feel the buy does not to fire section, and in the other where the fire many robot of the generation the bubs of bickets and bus wyed priors the group of quinter leads and bus wyed priors the group of quinter leads the busk and the priors of a buckwye up missed the busk and interaction of the section of the great notes of a buckwye up missed the busk and interaction of the section of the great notes of a buckwye up missed the busk and interaction of the section of the section of the sections the section of the se

Coyote came down the wind path. She

In a world of shrinking standards, our quality comes in writing.

How many things are there you can trust implicitly how consider Bic. Cur gually speaks signify but alcourstly for itself. Will never cut a corner and our guality control is nutlies. In short, even though we make mikines of pero a day our reputation rules on the miking to pero a day our reputation rules on the miking to be done whinthy shouldn't be a

"FROM ONE TOUGH MOTHER TO ANOTHER" - TorBak



BiC

Todesge, build and marks spectrospelle of withmast ing the more surgers mented Walter

Natasets no sets. I task, But here's just the person for the july My mother

Her single-eninded goal to engeneer the far extension out there

This Asserts Perkis is genera come berge un langible handshind of yang se could by made in charger Vill could're used a bird of cargo septime, but Goore Teo? or not individually used or not norm. We could're used loss that, 320 gene Thisseador' sanahano, bird of the categor is an achieved, what dascould norm belt, and is for of the capital position. And is the of the used position character is not in the loss of the capital position of the landship when the

You guessed at Mother Boyle would Accircommentation her

Mother Name is a penyur.

Columbia

For online cooling, and Hitson at 6620 N. Salainees, Dept. CLPrefamil, Oregon V203 from bit for regulation strates of F. Genil Agent. In: Match of complete internet of F. Genil Agent. In: Match of complete internet of F.



In past decades we turned our souls over to the corporation, our kids to the schools, our health to the medical establishment. Not in the future, says the prophetic author of Megatrends

INTERVIEW



In 1949, a severeten year-où h git-schod dropout had a moner di olegang. Despetat la casope han the triy, reautaad Morron community in winch ite had grown up, John Nastat had brevet diwing consten la joh ne US. Marce Cospe Bul when the d'11 sergeant cried. "Okay you people inte up" the an encost a here tank. Sortening about the word to people in starky brought tomics to like that the had only passed from one here contained and contain the had only passed from one provide. The bare containt Market at the were since barba

Today, in happy contrast, Nasoda at 11th five is in raing highnet, harrous and even contesecting in two He increase with preminates and presidentia giving them the benuff of the advice that, when he gives a speech, costs business audiences \$15,000 in this resolution theorem in Duport Circle, in Westington, DC, recently entarged by adoing the building meri clory. Nasisti and he adored with, Ratrice Advicement Host address for ports, jour-

PHOTOGRAPH BY DAVID MICHAEL KENNEDY

natists, and artists. When the couple are not giving speeches, they are cotsborating on their new book, Renventing the World We Live in, a study of "role models of the New Ace."

To the the based on them is therein purplet of the concern as To the the based on the topole states of the concern as pret, the concern the topole states or terminal concern as parts, heading the concern and the terminal concern as the probability of the topole states are the three states as the three supplet of the topole states are the terminal concern as the three supplet of the topole states are the topole states takes as the terminal terminal concern and the topole takes as the terminal ter ice stone is a staggering 2 million, with a choice of rate different Day-Glo colors for the embossed life

The weighting of Nasath's calculate score, to be initial scored y about the world Targeden in the moneter. Nasath's families the local and space in the weighting there moding Accords tasky wrietled the remainder in a Accords tasky wrietled the remainder the accord of the target of the there accord and making frame the lates predict Lyndon calcer in public relations of the lates of Bastram Kodde IBM, and the late predict Lyndon Achronom These one kay in Cheage, where he had actuated to must are accord from one he had actuated to must are accord from one he had actual to the lates of the head of the head actual to the lates of the head of the head actual of the head of the head of the head actual to the head of the h

While reaching a book book of in renegative period any On-stars instances in method outside the appendix to the contemporary laws Status in bought 50 of outside from dealing boom newspapers were provided and dealing boom newspapers were provided and dealing boom newspapers were provided and though executing the book of a megative theory of the outside and outside the outside outside outside and outside the winning an additional to method book and the winning an additional to one book book method out anyone. To addit gives up the in creates to out anyone. To addition to outside the outside outside outside outside the outside outside outside outside the outside ou

Totals, under the logic of the Natsett Storage, the method has neemplorm—the Brivensky for Larsies (BBL ayers Totalsand and Weeks (National Larsies (BBL ayers Totalsand and Weeks (National Larsies) (BBL ayers Totalsand and and the complete composite contenting portionant analysis of Stores (BDL cool needs Totalsand and and and to series (BDL cool needs Totalsand and and and to series (BDL cool needs Totalsand and and and totalsand and the National Case (BBL and totalsand and National Case) (BBL and totalsand and the Valuer news) stress on version is posetional Case (International Then Natset) and the Valuer news stress on version is posetional totals on a constant. Then Natset) is not the Valuer news stress on version is posetional total on a constant. Then Natset) is not the Valuer news stress on version is posetional total on a constant. The Natset) is not the Valuer news in the one of the Stores of the Stores position and while them to a

Arboying Natistim may, be the civit cent author in the Useral Busies using the civibiel analyses and mouse, it has a pre-civitt of the second second second second second second to account the calculation of leaferal events in Germany and agent. It is reportingly used in a farty an approximation second second second a farty second second second second second a farty second second second second second account of the Method second second second provide the Calculation second farty second secon

Given a stready accumulation of chp prog - 2 million at last count-and analyees, it was clearly only a matter of thm betere. Neisbitt packaged his matter was book Megatemak between for 15 years was completed in FRQ: Marked early by Warmer editors as a key best seller the treat serves. launchod with megatype, the contrary devoing a migra relate of the annual publicity budget to the promotion. The type back their in September 1980 when it provided a scatting pace in Araparis in radiily infilliad John Nasbith Cigl Joint 1980. But by then the book was largely immune having become such a podeling assessible that Nasbith was dialated to address the American Association of Publishers annual meeting.

Note hereversely in reverse of the book were quite respective. An intelligent, offererit perspective that sait mergins to disagtion Toward Stream Council and Autor of energy to the same sensation castrowerk part. The Autor operation of a good attribution respect in the foreign sensation of a good attribution respect to finitions the tamper and we contracts to the same sensation. All supporting we contracts the same within a happening with contracts and any sensation of a good attribution respect in the same within a happening with contracts the interference of the same shared within the low-shared interference of the same shared within the same shared within a transmitter the last law within

Women bring very different values to the legal profession. less adversarial, less antagonistic, less macho, more cooperative more wanting to work things out ?

Bone of the books "overanting trands which will define the new access, it was portial and are very latent the image shift" to an information access the gobal accessing the latent the information access that populared accession accession to any image the possission, the growing under uses the arms too

Bu other does it is presented were state an original and providence that corporations will be the universities of the future may the compare will work in the present of authority in this workplace. That the information coeffy a shared work in the present of the the generative and the Compares and desides Cherkolski becomposited the law graupe high technicity oversides corsisted Cherkolski becomposite for the constant of the control of the technical and the state of the control of the technical of the network and testing to compare the technical and testing to compare the technical of the network and testing to compare the technical and testing to compare the technical of the network and testing to compare the testing the testing testing the testing testing the testing tes

Nasibilit carries his thrumph lightly. He is grant and takateve with a local wary laught that signable hepethiness into all love and were in the fullies. This millionare hasn't forgotten frashing area up a farm boy in hard timea, his family scratching a basis wing from a sugarbeet ham. He is still maa high loadh tant high leich He likes he VCR and staticteiphone but so far only Pathoa hear matered her home word piocesion. Naisbit wriss with a pai, and though others in the company use money, the Narbit Group data base is ally uncomputational

Interviewed in the office by Anthony Luensign. Resplit all contentially on a sofa by a caffie able askew with foreign ochaons of his masterived: He was wearing a threat white-exclusive stripad with (The III a Hatnaway, locklyf) and the yellow basid and han backfully the wride-infit growed with a lond of aura. He was he potune of a pochet of a oches are

Ower: In tes essay "Self-Palance. Palph Waldo Emerson wrote that, in every work of genus, we recognise our own resolated thoughts." Are you glad that Megatenois sooms tamke skull to many people?

Neebbill: That is the reason why the book has been to successful. It's because people arready knew what was in it. Idocuments and veletates your own earse of things. That a why it works. The book is just a liftle cheed of the periode.

Onen: Heve you always had the counage to there for yoursel??

Nealest 1, gol bottled up for is ong lime i thill of southern uitsh i find only time have bills of southern uitsh i find only time have sided time the sector which i find only do which was going on 30 when they do yet the south i souther and i find on the cash i souther and i find on the southern and the south i find on the cash i southern and i find on the southern and the south i south i southern the southern and the southern is the southern and the sout

Then I worked for corporators a long time I became quite a conformat after is while through I click nature is. When I took my last payoheck from EW fifteen years ago and statted my own company. I maily bagan to be my own parties.

Onny: But you broke with the Mormon tradition at explanar?

Needed Variagines, and now worten to whomos social age instrements on an a metal interview. In private the problem interview in the social age instrements of the metal discovered the webbin disc in heading a book parsity for passare and bearing a book parsity for passare and bearing a book parsity for passare and bearing a book parsity of the social social particular to the particular and the social social and the to party on a mesonlise with of Curron the consideration by the social social for the social particular particular social social for the social particular particular social social for the social particular particular social social particular particular particular social particular particular particular particular particular social particular particul

Omni: So it seems that you came relatively late to books and education?

Nasibitt Absolutely I took dumbbel English all through college I was degramming sersenses as a serior incollege. I had not gone to high school and had no idea of the diference between these, there, and they are Momens emphasize education, but to my immodate forming that was not a priority i am afil the only person in my family that has unidated three college.

Orm: Did you expension the polygemy that was practiced by the Normona earlier?

Needlet No. But my mother had eighteen borthers and seless, who is the latter had threatwess thoughterly the starty one time woman in those days used to be very young, chickbearing sait wore them out. Brighteen had eas at the mod of the polygamous podue to the end of the polygamous podue to the end of the polygamous podue to the end of the polygamous poourne a status. I never expended any of het i just here the startee.

DevelSo its not an option for the tuture, then? Naisbitt: No! Wel, we can always hope! Open. Do you thank it is a oppid turne?

Neight: Only if woman can do the same fang if doesn't seem right unless it goes both ways

Oren: Although you are a millionaire new, clight you grow up with handlahep?

Nature 1 was been in that Lake Zay but during the Depretation we moved to Ginwacol, where I previous on a sugar teachinm. When all the people in toen were my counts and sunts and under, and we always had food on the form. Were any sugar to make a thing. It was install were, built their growing up on a form on a bootto use in teach were.

Denne Are we ready moving into an ena of grouper leasure? In New York and Washington, the amount of work memy people do to nem second a staggering.

Name is a loss of high partners were goes on new virtual were investigation of the loss of high reportant. The last state high partners in this were investigated and high partners in the loss of the loss of high partners were provided and the point allering block of the partner and high partner point allering block of the high partners were and the partners were were all in high partners and the partners were partners and the pa

Were already a nation of clerks—you and land all these other take way process indemation all various levels of sophistication. By 1950, about a quarter of the workdrone will be part-tame, not gut because of the computer to 1 because most workdrow will be working. Citry fifty/but percent of worken are now working, and initially percent of them are in their fuencies.

Oran! Will for computer help women to combine caracts and motherhood?

Namble: Yes The computer is a lool that manages complicitly We can match an inme. OWN credible array of lifestyles with tasks that need to be done because we have the computer to keep track of the complexities

If you read one hundred people to dooree hundred eight-four-day tasks, a computer montor allow you to hexe pb sharing partime yos, mgrt shifts, and numerous an imagement that add up to hun one hundred Just as highways ancourage more cars, the computer is a tool that invitee more cars.

Oreasi You think the computer gives people individual treatment when it comes to their tasks and pay?

Nastiti Vio is a very locating, individualing hing. This wily it is comparined later. The last neil in this cells of against later. This which philosophy of the labor uncer is to test were how a start with the same. Yery level hings could be more suit of time with the bands in possity than organized labor. Because the compative can new keep toxic of individual peletrenose in Medytes. The unone are incodebie out of none.

When you put high technology into society, it seems antihuman, so we try to create a compensatory "high touch" to restare the balance.⁹

Cose: The New Yerk Times reports gibt such elabers has pittemeted it does match computational other because werkers within hern constauter nervoring. The companies they use displacek every height by do every the net only agained gard is the labelence. This spryce is stream of the workers transmitrain and the stream of the workers transmimissingly transmit height of the stream playment thereins by a stream of the stream playment thereins by a stream of these playment thereins by a stream of these them a subsect of these?

Namber im aud direct bing warts is teppering. Already every subtem prevent of the in economically operane. Final and the economically operane. Final and the subtemption of the economical subtemption about the particular of the economical interaction of the economical term more about about the magnetized term more about about the magnetized term more about about the magnetized term term and the subtemption of the rest of the more about about the magnetized term about the subtemption of about the subtemption of the subtemption of about th Their enables a much more downlose sever that writers an engineering of the last here also observed to the last here also observed to poor humbers will not part her downlose the poor humbers and the poor humbers and the last here also be also be

Only 5a more companies are going to have to case wweening pools to occur amployees as some do already in California?

Nated: Acculately The First Herrors there parses the sympath tables. If that shift There agongs bis his, the First sale of Look at 80 Monorest raw tokes. The Farstheet Sale Companies at work for i Another Sale Companies at work for herrors. All to constitute the part of the sympath sale of the selection of the base at Bando or the selection and offer so-side guest worken in the Used Sales. And these at the selection of the selection and selection at the selection of the selection of the work part table in the selection of the work part table in the selection of the work of the selection of th

opport How core your new book. Herewere ing the World We Live In, describe this new corporate attracte?

Naster. The book cleate with the new models ciety New model corporations are going to be like SAS articles, or W.R. Gorn and Arnociable, in New Jersey, who make Gortos a sports material that keeps out rain and breathes at the same time. The company agenal authority. They have two objectives the last five years in a prigle year. Jan Catimillion dollars to earrang fivee times that He atood the onterization chart on its head Those who are dealing with the customer are in charge The rest work for them. At New Hope Communication, & publisher they inpay twenty-five percent above the going rate. or geminar for personal growth. The preadent's office was so nice with such a view. it. They slop have a rule. 'We do business Devel What about the unlessly old, low lech industrial companies that are still the biggist slide of the occnomy?

Nasbett They're deseptioning filles oblie wohere new milles up autoin of severition partiert of the total wohlforce, as against astyrkrepproart in the filtes By the and of this decase the bala-calar proceedings drug to around ten percent. By my guess, tible colors how not be your 2020 will be down to the three or flour percent that agnruling norm.

Orms: Does this decline threaten mass unemployment, ance perhaps some workers obujan't be retrained for high tech jobs?

Naight To say they can't be retrianed is eit. III. The workforce in this country has obvey been an aircr, lively group. Second, he process has been grang on for decades. We have had the number of beel and automotive workers wheat the other and grant and o than work, where the other and grant the other work where the other and an

Committee of the second second

Nauset, But the compose inclusing a line growth come and a clusters annually. Them are a transmission turbed of growth more the agree population. As in so many other anautic many solution is a solution of the anautic many solution of the solution of anautic many solution of the solution of additional and and and and the additional and analysis become in additional the additional and analysis of the additional and analysis become and additional and analysis become an extend at a basis of the additional analysis become an extend at a basis of populations.

being Since you can't eat, chrik, or wear computers or drive from to work, how big a sector of the economy coninformation really ba? In the and you need product, not information don't wu?

Newsitis: In this and we need only thefter lood, and defining Were enhancement loogs, on home measures, but hals all we meaning with all half of both economy list the overcasity both all completes and not doing anything date. We don't have to make every thing outselves. The opposite of this is to have one hundheal thy nations each meet thing all is needs within its own houndains. Today the world is somewhere between theal two estimates.

Oraci: What will become of the sport

Neithelf We is reversion a good job in the occurry with the underclass - elected as those under longer ptervenin i good little. The data we can't effoctively active to the poor lederally, so we must function monit on the infer land local livel We will have a arrange healthy economy as the sol can held the a number of years. And the call and state measures will build sumbade boolung of all her next lands infolded.

or four years in nearly every jurgitization in the United Stages. The strumerscale has loss gain. As how York City starts to show surpluses for example, it has been hims with indis of exploration and local activity will mail the federal spencing level of the Gast Scorety in the Solias.

Deens What other areas are going to be burgeoring in the economy?

Nauth: Francisci service av II have tittoticaly accretiziti gewin earther land Bates becomes terressungly a grant Innicuti laterregiscues in the updatal laboratory. Itsaling isolar ter testaurents inner, inner, in the bacymarce of analosiscore of the set analosiscue Al his registed in the set adaption to testaurents for therein an object as testaurent of therein an each testaurent of testaurent his et al. In the segment of testaurent adaption to testaurent of testaurent danas and testaers at detribution at appropriete to depertination

> After hundreds of years of mechismo and patriarchai values, we'll see more men wearing dresses, but we are not going to molt into one sex ?

ing are growth areas too

Only: Do you personally ckess lawyers? You have called them parasetic

Naget ver, there is that associ of it hat is worder to anything williout my layer, a worder that anything williout my layer, the worder that anything williout my layer than the second second second second second second the second second second second will be the second second second second second the second second second the second second second the second second second the second second second second second second the second second

Orged, Why will we base more knywer? Neisbät Because in the information sociary person to person exchanges will multiply termandously--the number of levelshole calls: the number of memory here to be extend in legal forums. Wemen will un dualated in legal forums. Wemen will un dualated in level as a good influence. They bring

a very different set of values to the legal profession, less adversarial leve antigomatic less mathema men cooperativemax earting to each fings out incore very best law schools not to marken matical schools and achieves are women. It was juit seven percent lifetimitient app

Dever with a full agreem, backger who dant databaset and the second sec

Other to you think anyone who hasn't alleady run out and started his own company is skew off the mark?

Name: The apportunity is the RM free to approximate and approximate the model is all to provide a large constant, which approximate the provide a large constant, which approximate regression and approximate the second second with space constant, all the cases and approximate the second second second with space constant, all the cases and the second second

Uncert with their you be in which patts call it spaces to move very, very advecting the matrice of the sport comport of balance patts and control in well, with automatic latent applying of any great interpretations will have the matrice of the technical years of the control in the control automatic space of the control in the control automatic space of the control in the control automatic space operation and ones in the control automatic automatic space of our characterial our indextant during competitions (can get it inter additions).

Orest, if we are moving to a global sconorry, why is the South gatting all the business acoptimute primat. In Brave new cities blend ancient memories with visionary fantasies of our race BY DAVID W. DUNLAP

ightease run through logscrepers at broathide ing heights. Anoualt weaters among the towers. Computerized, robotized buildings obey your every comment. Owned baseches of light and energy ful the air. Protective ments on Earth, under water, and even on the moon.

Buck is the Batters, as we waited mite the Batters, as we waited mite the public sector valence consistint the public sector valence consistint the public this can be taken on the sector this can be taken on the sector and the sector batter and the sector and the sector batter and the sector only more than sectors the sector batter and sector the sector and the sector batter and the only more than sectors the sector batter and great mere client, but mere batter, bat compared miter to batter days, bat compared miter to batter of the sector batter and the sector of the sector batter of the sector batter batter and the sector the sector batter batter of the sector batter of the sector batter of the sector batter of the sector the sector

This chrose of shapticism, howover, has short rise to a new, more appropriate to all visions. Recoming the steadam of here predectisors, the architecto of locally have compared and continue class that enhance the beat of our sociaty while de-emphasizing the work!

conjunct and continued a venicity of benity lies outsity clines that enhance the basis of our socially while de-emphasizing her worst. This upplie architects interveneed by Criter, of counter, held no unitying design or concept in mind. But they did phare in terr basis design is in processly because the orby is in referent, disperdicity, and chalose, they ask, that is a city at at.



KIM STEELE



 If there aren't 100 places for impromptu celebration, then it isn't a good city.







POEMHOL 91,114

An early champen of the international style in architecture, Philip Johnson was known in the Effects for crashing amplied roothnear structures with steel concrete, and waite organs, built in recent years, the claimpy sucched his amphase, dosigning buildings with instoncel references item statues to active.

Today Johnson says the clamorous only of the future will rise out of the same faith that inspired the proteineds. "What do you Suppose was in the builders minols?" He adso "Savery?" You can't make people work if they don't write. They't die under the winos But hey had something in the back of their minds that something is the somethy something to the somethy the somethy the somethy and someth

Pind we could do it to much better than they could 'the area in Them are so many more of us, and out tachnology is an -ceedide that we could build a city where werepres could bail ball out or green space and in two minutes be in the models of the most exciting conjungs of expositeing, activities, and theates

Achinesis ideal ofly would be comwhere in the match of the country. "Dul of the prains," he says, "should rise comates like the Emerato Edit of or Diz. Nounteg, insuring," mounting its stycompares much higher that the one-hunded-story buildings of hoday well build here-hundred tidrey buildings, three-hundited story buildings. There's no port at in a stopping until you, het e edge of softmotgy And were nowners near own invovos sheres that is."

High technology fhough wurd not be the contrastore of Johnsom cely. The houses he opplens, wuld be keptito the height of invalues, and measure due to a higher than eight sprase, Johnson propores in fact, half residencial areas resemble (stalemic villages, with tight, looked stready endry existing, be away. There's absolutely nothing (see a barbar for the sheer, provideorited with ofter humen beings and goods.

Monoever, many valuable qualities are already worken into the urban fabro. Gunocul aid it might accurd darafay—the quartoscence of oxy Ne—a among them. So is the common history and memory embodied in municipal landmarks, a fact that is been reloganized by the avercovering previous along memory.

The alchitectic pointed out that the search to an ideal city created from south goes back to the initial years of the Republic Doe result of the Tatarntic Turking west to incruments plantice water the search of the tatarnenced and the search of the tatarn encoded Architer was the first search on community of New Hearings (Indans), which fourthed briefly as an intelectual which fourthed briefly as an intelectual and subtain feace and the 102b .

Today that search is shi on Rado Soler is outsenly constructing the ecologcally and estheadely talenced corresuing of Arobanzi or foly in the image of man." And Dones Gloodman is deagning flexible new calles for the sea dealow and even the finged polo.

Some of their more incellional octling use, moderwish web the label ofly as an electropic of the methopolic of the dep Clear This to materiae would aller the uter orwebnet with a contral aller of instruments, once centers, and pails there in teppenhalt who dewrysail the panel community of Calimba Mary land. High paines would contain depletinget with lacastic contain depletinget with lacastic purchas and the contain clears.

The city has fostionally include the obtains that starsment 4. The desaposition options that starsment 4. The desaposition was desagred to democracy tablogue, and this arts. The Review of your program the Colossium the barriers and hole Crious Meemis just power and order above everything. And the modern industrial only which houses not thousand bit immediate everything. And the modern industrial only which houses not thousand bit immediates and even overching and stars. Inglings and even overchinged stars.

The posteneixated city of the finance, which will be marked by ever changing technology and the Computer Age, may demonstrate variety them any of these. The following weards are just a few possibilities, iso seen by some breach break thering and thirds of oday.

Potares include Ron Petbla microscopy (bp), Paolo Solori s spice colony (michal) and UKZ s recentlor contra designed for the top of New York 6 Pan Am Burding (bottom)

Give them the card to keep on top of all the rest.

Next programs contracts pro-A Cation FlashCard

It is all small spills prodit pard, but it is really an increatible adoutator Perfect for hwing along when using a credit card It has raised numbers that report boautifully.

to touch. And an 8 digt display and a memory to help check all the hourse.

Battar still it runs on light Any light. So you can to t advertere

The Canon RashCard In white, silver, or gold its one card that makes a perfect off.

Date sectors for canalest letter

Canon FlashCard

To enternae the atmosphere still fur then he adds private cars would be prohibited propile would instead use troleys and subways. Neightonhouds and cultural centers would be separated by rivers of groups ray banks off courses, even centeries

Perhaps most important, though Johnson vocati like to shape the outry of the future with the past. Currently revitroducing turnes and terches and basium pedatements to contemporary buildings around the country (see phone to start or an start of the pool and bag allot of old tamps to cony. We can pick up anything from anywhere Wity no?

That is not to say he belowed the ideal city will get built. We ve got to get our arms much much higher." He says "Ches are going to grow badly But you can cheam."

EMILIO AMBASZ

An acclain-the rull paradise where man and native have made ther pairon-is in other posedul only of the future. To create this particul paradise Emilio Arrossiz, the borrier current of alchiecture work delarging at the Museum of Modern Art, would build an underground settlement, with an ordinard growing own is compared paralier.

An underground any does not mean buried houses and deep excevations hough The one proposed by Arroace has more in common with Native American dwellings set into the lendocase hair with houses case class line well beneath it

Arribanz, would dol him city with thortconventional inducative and cover them withtolling tables increan term and there by weback terms is small house would emarge that the term is city downed to solve the term the table, in city downed to solve the term the table, in city downed to the conservation control term and the solution control term and the terms terms and term and the term and terms and the terms and they window over backs the land.

Tis a normal house. Ambasz neuts fourt by normal means. He advandedges one noval fastuse however Because the cheelingines under its ownitism. It would be easily be frose means to fail whether the grass was being brotted. Resolutions could hear the laws meaner on the soft.

Beyond the house following the natural learnin comes another set of berris. This time the galeway to a terminal office complexe. Windows soom to be cut from the ground as if the each heat prever wyelds. Though that cutate of papele work within, vestors can deted, only a few stark geometric patients in an otherwese unput terms find.

"Now don't have to have the city or the subuctor. Ambase says. This is a different form of urban settlament bacasule you have farmass working right next to computer programmers. And we do have a tradition of having in the fields.

Ambesz also suggests a change for the existing only. His concept stants with Manhatian, which he calls, the most ackended artifact of the uncan nature of the twenteen confury—an estimationary, hirde chinesonel cressboard with networks of sub ways and energy and talaphones and sowers on a neutral grid

Werkinsteinig most exerting buckings time the magnary strokes, "lawing only a leve terromises Ambates would lie to drip bartimate lawing our lieve their tentor. The Soliting stands would bail and the strokes around the workt and -solitional - the "grant tag methic hall have aurwealt the decay of the would constitue the Partitions Japan, the Ambate hall have aurwealt the decay of the mathematic the Partitions Japan, the Ambates Tag. The strokes are and and the strokes tags. "You may a solition ponterior." Ambates tags." You may a solition ponterior." Ambates tags." The strokes are and ponterior." Ambates tags." The solition of the ponterior." Ambates tags. "The solition of the solition ponterior." Ambates tags. "The solition of the ponterior." Ambates tags. "The solition of the solit

ENOLO SOLEBI

If Packo Solari has his way, the ment atoms and monter of the oily will dome to inflicit the human soul. "Ongaine development on this planot has been the transformation of mineral into mind." He explains. "Tim trying to challer de a similar doncards for the oily itself."

In this charge solari notes, paople will twe work, and tenyor a collective life in close prooms Wind I als trying to solarence is soft conferment, self vehance, compared, and ministrantion. The copares. The idea is very much in hismony with what might overbaily to built in solare."

solar teele Accostri has on much in common with space chies in fact that he has decided to add yet another project to the significant copie. If we supering the hstitute of Space for Piscos and is designing cristic office, he says, because 'gavgh the international alludin, schemens res for (incudoout he fact that pisce could be a very period/uptor "

Solim's space childs would be one to terculou mile "phoenta envelopes." We need an envelope. He says "because we carned castan life in the vaid We need to envelop space, pump in an etmosphere, davido in ecological bilance and her introduce in

adden inteles that space would render that mell file uniquely ferrorine. The addence of gravity, te deplates, would revelutation "muscle-bound" concept of civilization "Mysacial effort her been the basic of any civilization up until the advent of lephnoony, in eaves. This been the opacity of

Or the PocketPrinter to put it all down in black and white.

101 (D)

Another thoughtul gift is a record The kind of a record that comes with Garo soketPrinor colouistors

Ques on thermal paper And for the record, they're street any wh

to R in a pocket

The reasonably priced TP-8 with its way to traid its have sense in the poly. Or the even more allowable TP-7 with its logid crystal display So give there a PocketPointer. And show you a



All population of the second s



Plain is fancy.

Nothing's more eligent than understatement. Which is why plain lice Bal is anything but plain. It's smooth and perfect, made from the finest English catious. Plain enough to sall your fancy.

See sive W75143 and others at finer men's stores and golf professional shops. Or, see all 118 fool-Joy Drees Shoe styles in our free catalogue. Fool-Joy, 144 Field St. Brockton, MA.02403, Depi. OM1.

Gentlemen's Dress Shoes by Foot-Joy. the mails arring to produce muscular on any Another probably developed info what we have new as machience which been much reason to read any bright. Indeed, whose the need to light generative of the twoindex in upper brain to feath rate with the the mass appealing and futuration assets.

By ubbrancing space, Solen says, we will solely be reporting our works' Wild's mind's we report into space threating. In the sole of the space threating is a space to universitie or amount of the strepto or polyametale or amount of the strepto or must ave the space of our space of the strepto wathing, he says to lageraid polace and scope with the "continuity and potentially destinno or barbarce at meetings".

Balen says is ocenic processing will be inclean communication with barth to a long paratee for these space devices. The predicts "screening" they work with the forrestor of parateen in space. But let no boother matching and services in the boother - where space is reclared as initial horomer matching.

ESARPELLI

Cease their characteristics also paid to more time more uncertain would dominate the only of the base. They are exercise "any time data of their takeness" is birthal of indefinition. They are consisting to put our hearts are intrangere or one them they could indefine a ubleman place that detrine the could indefine a ubleman place that detrine the could indefine a ubleman place that detrine they could indefine a ubleman place that detrine the could indefine places of werk on proceedings places of their the could be a solution of the solu

The hub of Pell's only would be a small park surrounded by owo buildings and public ementes, places "for disperg or paying or ording memori-al the things that bens people logither."

"What you need is that heart' he awaand the set will preven to one on the should need build a city like a diagonim or at machine One hear to start plenning a city like an ofgenerm. The best plan would shall like a germ and allow diset to change and to opportmodule new clean as him careful.

There is no way to dictale where the only of the future would be built. Pelli style. There only will grow where it grows because of honces bayded a plannet's costilo. If the nearon networks, for example if oil is disconcredin-then we will build class in the most unitary places and people will foot them.

What works Poli is the possibility that the only of the future will be a single indistinguestable mass. "It is necessary to have beins, small office, mediam-size office, and large metropolises, "Belli says. "Those chance are sesented."

Pell has been welching the amail lown grow to towerthis the matropole as people year the same TV programs, talk on the phone jet efforterely from place to place tow the same occids and shore the same computer lines. "Diversity has enclad," he says, "as we became more and more one angle thing. There are very powerful fortice. for homoenization."

RAUL DE ARMAS

Powerful forces within the unban bonder might split up the oby, notes Paul de Armas, a partner in Sectrore, Owings & Mamil the tim that has played a large part in transtemen publicar areas across the country.

It might be decided in the future that we should all go back to being tribes and hide in the mouttains, 'he says. 'God increas that with guernite wattern, we might find ourselves in the intergreasive phase. The only could go into a tarligen '

The result he says would be the anticity the and at a 2000-year old Paman invariant that has come to us supernitry intuct as a place of equires, decuses, markets and numming withit—a home for the porrest and weathings take

A guerrate concept has developed in the last do years to e-Arman operatives "Threat groups tade in the mourtains getting help to survey through histoen networks. We can aliastly see this tend in places like the south Bone, where geople have created ther own mountains by burning the buildings down "In the bare your wight have the established gry and the activity wide by side.

Da Arman says to excid table one and improve the outputs goly them timen of a metropole built from stratch out on some geals plan. Note as more going to get in parts data to become in wall ofly "inward. A metro dry a maybe of brings that don't deally was together built down that makes the other strate strate metro. If all makes the other strate strate metals that makes the other strate.

Although his from heis built a great number of buildings throughout Amorica. De Armas says there is title that a single inchisted can do to change is only a counter particularly when onlyacion is advanced to thordy.

Les Arrbezz and Peti De Armas uses an might freed in computer habitions which might undersmer the social Strict by meiagit auxearser for people in minola locatores to exchange wait arounds of sophiscased data. The only antidote is a human one. T would hope the asys, when im besughweaking on my computer and you're besugh working on yours we can meet for a chark on a well in the self.

"nou can never, never replace the worm handshake, Do Amas says. There are times in life when you must louch fiesh."

MORTON HOPPENFELD

Notion Hoppenield had is Isto opportuinty 20 years ago the choice to design a digition a huge list of Mungland Tarmland Are a tree when America sources to be in to list ophenics embrode of the tubus, dwalopprutemes Rouse assembles 15000 acres between Battmote and Woshington. He asked Hoppenield to be the chell authetic of the steel new team. Columnation

Tadax more than 60,000 people into these

INTRODUCING THE HOME DECK FOR THE ROAD. IT EVEN GOES INTO REVERSE AUTOMATICALLY.

Ever notice that tapes you we recorded at home don't sound as good when you pky them in your cir? That's because a cire's acoustics are wetly different from a home's This same tape that sounded great at home may now



Press then having its communically compression for the accuseit narranne of themesones Happily, three's a quick, simple, effective remedy The car EQ buttor in our new K-600 cassette deck Push it in and record. The typical frequency response characteristics of your car are automatically. compensated for So the bass and nuclearge sound fall and natural. Without boomaness. And the highs come through load and clear.

It's also uniquely easy to make that recording on the K 600 Use its Auto False Out and Auto Beverse functions, and you won't have to worry about ending 5ade One in the middle of a seeing You'll get smooth, natural fade-outs and fade-units in both directoms Autoentacilly.

So test drive the K-600 at your Yamaha dealer It's the one home cassette deck that can really add to your

loving pleasure



Torasha Electronica Corporation. USA IFO Box 6460; Bactar Furic, CA 90622

But is not Columba that Hoppenfald shows off when the masked how to backlifts only of the future indexist. He serve a ways to deal threads 200-year-rob Loongton Marica to be half of the sty, he should over the solution and even in the smalle of the roose and colores of the saits the nose and the ways and the state the nose and

There even a hundred places to unpromptu heater and patership hopentid says, I shi a good ony When yours tring about ones you're talking about le' in abuildings. Aerthaets even concerner ei yn shape and form which is largely welever. To me an achtec's work is not complete until secold hou'r du'il and hil up

Dre quelity of a good catry is an optimum smay of opportunities for developing your set-on and shopping," he says. That invasis the city must be write points probably much longer then Columbia.

Hopperfield also funks cites need many bodies of mateu—rwars and takes and streams and ponds that people can get to sayly. These must be a part of the skylor There must be his says grait piscos of public gathering mastericher by atempting works of maximus along meender og arerets

Hoppenfold's vision though is grander then the chyline designed. What were going to seal an inot as wonderful as in could have been the says while driving into Columbia after tarefri at Litergron Markat. The part of a diream and it is only partially fulfield Downlown which is a very reported pert of the oty, has basely started. Nou can toutly great ones with short ferm economic goals but Columbia got caught in that ownch

The prace is certainly pleasant ansugn and does meet many of kappendids orthin Thins a make, makement to annual shopping met loads more law Man Street throughout the oty in the villages of Wiles throughout the oty in the villages of Wiles Howan ond Loag Reach. The summaries mander And three are seen overywhere But sendences are seen overywhere But sendences and three are seen overywhere But

My disapportment is in the lack of visble urbanity. Hoppenfeld says as he guides a visitar through the village centers that are the none of Columb as eachtborhoods.

He concerns sarge from the broad to the wary specific. The shape segns, and dasphyse in Long Reach, as in the rest of Columbia are testefully controlled. But what must have been a welcome pass of eachers calm in the mid Sectors pass will looks become

Given the charce to shart agent hippenfold says. Toxical seek much mark vanish, much mark feelivity I would new permit neon Haw dia you allow the line between the sait valctant aperaing set house expressing time, saif and the needs of the community? I am the less constrained new with, quark good taste he notes 118 ppt for white-

In Long Reach he says, the population entit dense enough for the kind of walking mong, and reseting of people that I like This was a compromise between the Rouse developers and a country government that wanted no rot ban fixed at all

But Hoppenfields depection versiches when his corres across a grassy hillock. In my lariatay, his says "this is a building site Someday, Im going to show the people of Countribia that them is a second Countribia to be built. There are building sites every where it this vere a low sory aportment flock: it would add so much the

What exotes Happenfeld in fact is Columbias propile. They are highly educated to asign accessly material accession and the second second accession of the entern accession integrated and to a modest eater accession integrated and to a modest eater accession accession accession polithings The Doambe circumstance or phase and many people have internatized & This has been more than non-

30NNA GOODMAN

 AN OFFICE THAT RESPONOS TO THE TOUCH







Back when he was just enother New York City endrated, Michael Kell Jold 8 engineer. Tuday he is one, and the room he has designed may turn out to be offices and apace stations of fomorrow a design study spansored by Armstrong Kall used the project to design a "knotic foor (right) an idea held been loying with for years. A kinetic floor moves, sink to form room dividers. The floor splits draigh, you enter the soom by placing grows from the floor, abowing you to program the room for your current tasks. Then it shanks away realizand the catolike bar in front of the seated worker and top right) on the vertical bars control microphone picks up the tone and relays









A keyboard rises from the floor, allowing you to program the room for its current tasks 9





It to the computer Depending on the programming, the computer then turns on a display screen, places a call, changes the lighting, or provider when ever rise is needed, such as a couch that can be called up out of the floor (op onter, top right and active)

The idea of a movable fibor caught NASAs asterifion and lad to Kalif a ourset agency-sponsed studies of spacesteror design. The most efficient structure for a space holdsts, NASA's responsed might well be a general-purpose room when fumiliars is compressed into its wells util mediad.

Kall's cleas have not won much acclam from architects or referer designers. "Ether people complian that this is too fanout or its not tanout anough." ha reports. "You'd be arrazed at the orthclam five had to cope with

Can the real to be approximate the second of the second of

But theil pobletly stands to reason, ence getting to the stars will require conquering to the stars will require conquering both quire rand inner space. Neiking a space environment workable and leable will sale the collective efforts of both engineers and achieterss DO



CONTRAILOPRONTPACE DI

"toped to stepping, but this space's a rise "toped most of my time working." Goodman, is leading authority on future architectails copilana. "For the last lew years, live cut out most social life and biscome riscuwe in a path to develop my concepts...

These concepts as Secontrarrest literarexplored in profer-minipartial over heri class and wals. The diagram shows a hubac compress, the asys, with a correntient to depet mouse in a funnal concernitive explorise. This is a funnal concernity where energy furm exercise provides here an information center in my work, the entre explored prevent leaving the individual with information systems that allow for through You can learn and do what you're interneted in matead of being charmed three plepleved mandatory charmed. The future city should be an information network that sakes you where you want to co."

Boodman who began studying the Nutwer metsoppie as lighted as existential Columbal Linkensey says the ony of the twenty list contruly will have an atmosphere of the twenty manual schwitz if will be a montrage of matipue options.

To provide these options: Goodman would aliminate rush hour, establishing time cones within the only so that people could work or shop reght and day. She would install no manus computered centers to provide imformation for waters and inhibitatis alias.

And she would design buildings even



whole urban areas, that all a moment's noted obvid be inholded for an alternate purpose. The object (n), the easy, is at these domanagement of the second second second second as well as buildings this can change into note and lacedes werry twenty years or tas learning the the designed in society to all Obsidescence will generate new forms.

Accorning to usedmain the likebia clipping individual list in the annihilation testing the occurs the poles, and the way. Click of pair work along the way of the test the occurs the second that the second the occurs that the second second the occurs that the second second to waite paths and of index along the waite that the second second manufacture the second second the second seco

Geodram says we should have a cdy on thesea within 40 years. By that time, though do will already have designed a sprice city, and a poter matropole as well. As the puts in the poter matropole as well. As the puts in the city, exploring some of the social and economic source at thosy. After comoleting in the city, exploring some of the social and economic source at them.

The post of the ear's An occas role on the optical population becomes a horizon of the terracoust latition as versus retrieve well decorages with the weathers (round 1). Some relations wonthash) broks were astrong there are country—and there now favo be portical system—in pipola (round 2). Physic thissa personais metrum 5 caths, tateting a post only and appressing the galaxie among their mergenated between (rovel 3).

By onaracters are very vulnetable very human. Coochran bays, but hey also have ideale. One expresents capitalism, one rep issantia communer, and one represents the new way. Lake the set of us hey're atruaging with halas and realities. It is an intereasing poterm."

If Goodmen is charactering her datagets through futfors since only emulating the reture of the otyr ited. The only is a mage list at iteras of activities. The account is a place where people from off offerent hereits come to perform it has to have therein. It have anyon place if relations in the matter of them on the patient of additional the to have anyon if you don't include the notion of them on the out-list dataget of the offerent of them on the out-list dataget of the offerent of them on the out-list dataget of the offerent of them on the out-list dataget of the offerent of them on the out-list dataget of the offerent of them on the out-list dataget of the offerent of the out-list dataget of the out-list dataget of the out-

The concept document says broad to much to uterase classing for the werty-feltoreary architects: For an new annotetimus to develop, insuencial of other will be then "One proteins with a new classification of the says of the same same same same same of the same reporting at the of a

OYONOFI NIKUTAKE

The island country of Japan has scarce land for building and development. What Mtip expense remains is mountainous and

03 06/N

sizep subject to heavy rain and landslide that prohibit inference correlation

Back in 1958 sadking a solution to this clionma architect Kyonon Kikutake luoked around and nototed the sex. If he could'in expand Japanese cities on land, he realsed, he could so it on the water instead.

Similarian repetitioni lato Dia costituticia di valta la colla fer locarra (conso di valta) la colla fer locarra (concomer and restando) yn the seebual i fa strumappolis in the seebual i fa struman returno si hisuzaletti merculian clasnan returno si hisuzaletti merculian clasmerte fi pasiona di collare tra di adamete nane secondo construcción della concomerte fi pasionaletti folorgi colla di secure independente fi collergi colla di succesi moderni desti di reculta ficale face abaci 2000 dobi andi a sense o l'oseri debia returna presenta di sobretta e o con mini-

According to Xelutales, building ultramodmiture obles when or on local close trail cost backy will be winned in local close trail to heavy. The corted of a city tackers and composite on the corted of a city active and composite on the work? To get actual that packars the city of the hubber will frequently also the form of a coster pole - a city centare built on the coster or nearby land, secrated from the city of the ubber power.

The occars contrepole the lass, is initial leaded of all "bands generations" in the Paper, be Attribute the Medianmeners and the watch of Social hand Asia (Andrea Jays, well warry in population from lots of thouands to average infinition and they may not being in any particular ocurity instead, they would from independent culy-states consisting of exciential arreas and is vable instantial case.

As Kisutake sees it the opean city of the future would be messionic in nature. That is, it would be able to utilize and recycle energy and nounahment from the opean risett.

If would also be factore motale, and easily expandable. In Europe, the other have been built to last permanently. The explains

The other may be good which you're buildt an ancwurred Buildt and dud suborgs and subord in a wanity of staacoos. For ina chida i shourd be designed so the spece a chida i shourd be designed so the spece an be monitored when the chid grows older or moves out. At a certain part, the people of a covy might await to show the chida matropole to a different locals openg to introp design and to an exit.

The oty of the tuble Kikuske notes, is are contreprint upon the cubine twice aparent of Childbard will always be charging to something new or better. He says "but cuture is a container accumulation, an addition to the culture that execut before "

Europeens taik sbout utopase--otes tailt from sonaide to fill a given function, he says The Dreams way is different. Many repects of the old, he good as well as the bad, eculd be broacht to he new DO

THE WORLD'S FINEST VODKA. ON ICE.

NIANDIA



is at based on a simple formula. The sum of the number of thicknesses of paper in any two adjacent trangular sections equals the number of tapes in the tinal model.

Since the Princeter days the literature or legagers has been scatt and scattered, mestly comprising privately circulated menuscripts and notes in such academic purates as Mathematical Gazette Amercan Mathematical Menthy, and Rechaeboni Mathematica Mestanne

In the Decombor 1566 issue of Seentife Anerocan Martin Gardner with about beorteaugmen na intrik flas launchof hus Bayvas outrim Mathemated Garreet Gee Dross Martin Eastbern interview. January 1985; The antice sparkad new the eligion fewer and elicited ane of the most insus interreter an Alan B. Du More Laborationes in Cattorn New Aneroy.

We have a publish This moving one of our fellow wisis althing fallowing the berahoushis agon rity when the toj of his necide bocame caught in one of the fellow. With each succession fallow move of the fellow hold into the flexagers. With the sixth files, he desppendent should

question. Does his wicker allow workmain/s compensation for the duration of his absance, or can we have him relectand legally clead granoclabel/? We away your activitie

months later

Toe day, while strend a topsing the tai Toe day, while sity Steining our Intest texahexafloxagion we were combainted to find that it was producing a strep of matteol card material Further Reining Intelly demorand a cum chemical Mathatin

"Underbindely be wes in a weak state and, owing to an apparent loss of memory, unable to give any account of how he catfie to be with us. He had become gate a per around the department answering to the name of Ecoles.

"Our problem is, should we now return two and, if so, by what method? Eccles now onriges at the very sight of a headheadhacagon and absolutely refused to files."

-Robert M. Hall Royal College of Science and Technology Glascow, Scotland

In all the years since base is discovery, there has never baser a definitive sourceback on howagens. but we have there will be one soon. Parity as a result of this spacial Overs feature. Finish Bornhait II anetheremics professor at the Rochester Institute of Technology, is properting to fill the wold with a full instance of the subject. Same recalls that he and his colleagues were one considering painting that have foreagen dais get "N one point i even cher up the first draft of a patient application. I there is mays the sme of the wiry low patient applications that includes a proof by indution in the mixed or till bet here the wir in terverest, and we wird our separate directors. The where provert our separate direcbase. The where provert loads."

Of what use is the hexaftissagon? One eatter here has suggested the possibility that a might be made into a se-sided froppy disto computers. When you think with one ade you lies it to being up the next program.

While we call awart the first procideal legflictation of the wine win have incognition that mathematical iclass like the head feet pands and always have interdeal explications, but they can lead to other anala of adaptively that is the head to other anala of adaptively that is the the head of the short of cathode a that can be adaptively. It was an explicit a the head of the short of cathode and the head of the short head of the head of the head of the short head of the head of the head of the short of compute the theory of the short of compute the theory of the head head of the head of the head of the head of the short of compute the theory of the head of the head of the short of compute the head of the short of the head of the head of the head of the head of the short of the head head head of the head of the head of the short of head of the short of head of the he

In the meantrine we all cast anyoy for the reason that ongoinally intributed Rocherd Reprintan HS "just a toy" A further banue. Probabled mindle cast applicable anniversary houshousbaugon are on the mean second gimpuss of images of lower work, and play in the twenty-field contaugOD



10 (60)


What is the world going to be like during the twenty-first century? You tell us

and the share the second se

For Otoms such perivipenuety, we've publicipative a polityery tradition denomination so publicited in our first iesuer Our goel is this same is a weil back from to tap our coaclest i minicipand get 5 Kentos far how tows the time.

Coming split the text control/y or bostore item init to right/r colorios on the riters, disporery of the foot pakets. Not, horsen clariest titer philo booriserion bird phesis surgery without bird phesis surgery.



Indexe shapes and CAL source of the second constraints of the line it there at this is that is likely and source and Lake in the therefore remarks and another the therefore presents of praidering the source interface and source bench source sources and another the source of the sources and another the sources and the sources and the source and the sources and the complete balant sources and the sources and the

¹ Magartý of Inorras halvé domestic robots Before 2000 to: 2000-2004 2000 to: 2001-2080 to: 2041-2060 to 2001-2080 to: 2041-2060 to 2001-2080 to: 2041-2050 to After 2000 to: Neuvor to

P This test manned tandargs are made on Marsi Boloni 2000 to 2000-2020 0



2021-2040 cr: 2041 2060 cr 2064 2060 cr: 2083-2100 cr After 2100 cr: Aveau cr

 Space sectors in orbit result inplimitant's Bulgs 2000 rs; 2000 2007 rl; 2020-2040 0; 2041-2050 0; 2081-2020 0; 2081-2100 0; Attai 2020 0; Never D.

 Final contact is mode... with points team of intelligent unmediated life. Before 2000 tt, 2000-2023 tr; 5021-2020 tt, 2000-2023 tr; 5021-2020 tt, 2000 tt, 2001-2020 tt, 2000 tt;

 Travel agencies, it conjunction with NASA, oth calescial weeksendin twoday shadle trips. Before 2009 J. 2000-2001 0: 2001-2040 pt; 2041-2050 pt; 2061-2040 pt; 2041-2050 pt; 2061-2040 pt; 2041-2050 pt; Abox 2100 pt; Never 0;

6. Sporting events any consistent in orbit. In see and low powerly conditions. Balava 39(00,0, 3000-3020) 0 20(21-8040/0) 2041-3070 0, 2063-3080/0; 2081-2007-0, After 2103.0; Newsrot

7. Fanst 2010 borin in mpanne Bakere 9000 to 2000-2020 to 2021-2010 to 2004-2020 to 2001-2080 to 2021-2000 to 2001-2080 to 2021-2020 to 2001-2080 to 2021-2020 to

 The testimational Clauson for Tach towardup is obtain lighted Behave 2000 in 2000-2020 to 2021-2040 to 2041-2060-8, 2061 2080 4, 2041-2020 to After 2020 Lt. Never of

9. Tertifi planet located Betwei 2000 to, 2000-2005 to, 2025 2049 or 2041-2060 to, 2001-2060 to, 2061-2000 to, Afriet 2000 to, Naviano,

10 Scientese prove that this meanstrainly possible for an objectio travel faster than the research of total, Before always and America



2021-2040 II, 2041-2000 II, 2061-2080 II, 2061-2100 II, After 2100 II, Never 0

11 The population of the work reaches 9 billion (60,216 white 4 we at 3364 Before 2000 D; 5000 -2020 D; 2021-2040 D; 2001-2000 D; 2051-2000 D; 2001-2100 D; Alter 2100 D; Never D

12 The service Announces has a requirer dut of vigatables and rolvinee products before 2000 to 2004 2000 to 2001-2000 to 2004 2000 to 2001-2000 to 2004-2000 to 2004-2000 to 2004-2000 to 2004-2000 to 2004-2000 to 2004-2000 to 2004 to 2004-2000 to 2004 to 2004-2000 to 2004 to

10. The average human life span is posial than 100 years. Before 2000 D, 2000 2020 D, 2021-2040 D, 2041 2020 D, 2021-2040 D, 2040 D, 2021 2000 D, 2040 D, 2021 2000 D, Afbar 2100 D, Nevier D

14 No large human populati tons are subject to stanke-



ton Baton 2000 0.2000-2020 D. 2021-2040 0. 2045-3020 D. 2051-2050 0.2031 2100 0. After 2100 D. Never D.

15 Daming assisters its foad lakepathic communication are communication 2006-2020 to 2021-2040 to 2045-3020 to 2021-2040 to 2045-3020 to 2021 to 2045-3020 to 2010 to 2040-2120 to Alter 2100 to Never II

16. A human being is diored. Bebre 2000 0.2000-3320 0, 2021-3040 0, 2031-3050 0; 2061-2060 0, 2031-2000 0, Alter 2100 0, Never 0

17 Gloning becomes the most contract from of reproduction Biologia 200 th 2000-2030 ct; 2021-2040 ct; 2040-2030 ct; 2021-2040 ct; 2080 tt; 2081-2040 ct; 2080 tt; 2081-2040 ct; 2080 tt; 2081-2040 ct;

 Genetic resolatch permits hing re-caselons of extent animals: Bafero 20003 2000-2020 0: 2025-2040 0 2041-2092 0: 2005-2060 0: 2081-2100 0; Alter 2100 0: Never 0;

19: A gane implanted izas entrizyos keeps viruses from antaning public Belaos (2020) 2000-2020 rz, 2021-2040 0, 2011-2020 rz, 2021-2100 0, 2020 rz, 2021-2100 0, 2020 rz, 2021-2100 0,

35. All common utilisticad diseases are eracloated Barbye 2000 JL, 2009 JC001 2021 2040 (c) 2041 2050 (c) 2051 2040 (c) 2081 2050 (c) 2051 2080 (c) 2081 2000 (c) Aliar 2050 (c) Never (c)

21. Noti Sama of calibri ate sustale, Bafora 2000 til 2000-2020 til 2821-2040 til 2040 til 2921-2040 til 2040 til 2921-2100 til After 2100 til Never til

 Regeneration of human limbs is possible. Before



2000 13, 2000-2020 13 2021-2340 (3-2045-2060 13 2061-2350 (3-2065-2100 13 Alter 2100 (3-Never 13

20. Pergenerestion of human organs is posistile, Before 2000 III. 2000. 2020 III, 2021-2040 III; 2011.2000 III 2081-2090 III; 2081.2200 III, After 2 900 III: Novem II

24. Drugs that can enhance learning are popular. Before 2000 c, 2000-2020 c 2021-2040 D, 2041-2060 D, 2051-2097 C, 2081-2103 C 41er 2100 D, Never C

25 Aberradives to plastic surgery allow the entre Numen body to be resculp-Lined without scales of pain Before 2000 to 2000-2020 to 2021-2040 to 2001-2000 to 2021-2040 to 2001-2000 to 2021-2100 to 2001-2000 to After 2100 to Never 1

28 The fest glackator match between robots takes place marks/monitor vo 120 evegetation recently started cropping up on the ring soil for the first time in years ?

ANTIMATTER

Interview Johnson allo recalls the exchange of November 2: 1071 He was leading the interview has a reacting the interview fails a weathing me the group doubt a discrete the group doubt a discrete to be see a discrete catewish crystal lights because on the photo descending on the because on the body and he because on the photo data the photo part has the photo and he because he reports until the entit here back mother the sec

Field the Johnson work and there, it would not have been laken schousty But when researchers came to investigate, they found broken and bistored trees, burtl



UFD UPDATE

see, one an ope mig adduct reprinted in overhead marking the agot where the oracle had supposedly howered Laboratory analysis indicated that the ring soil had a different channel makeup from the surrounding cht. And a sones of ontons showed the non of clavato in the dark.

Moreover, Johnson acon clarmed that his parents' Durit and Imme, had also seen the craft. Over the months and years the three said that the ring sol was numb to the touch and that it impelled all water and alree. Told' shreep ware giving birth acuty, they said. Johnson that sufficient process pablems, the post of the was opening their mell' and wate their electrotic had becaute the total and water.

Though the sighting occurse more than a decede app. I is one of the most holy distance is unotagy today. Mater Andrus, international director of the Musual UEO Nowork says Daptos inmans the "these landmentmec case in our reports," while UEO desuriser Philip Klass calls in one of the last impressive hostwell re moduritized. part inside other and an once in gots and and what the gay (Class) says We had about two hundred acents come down here and agy they in new seen any time, to his before, was iffsen when i happened. Even if i'd of wannas to do here. To over all of any accession to the over wannas to do here. To over all the overall of any accession of the before.

Wegatation recently actived copporting up on the mission of the first time invasion. Johnson active the generation and twiat the farm while the and the young with have moved to a house nearby. He hand toes house the mission moved to a house nearby. He hand toes house the weight enrogen more than two years, to assign although the traggering larger and the active state has been UPCo in copple of times smoother information With incident. Dutiles nearbins watching on weights for the status.

All I can say is it made a believer out of the line sights ' try not to think about it that much anymore. It is not like the going to jump of my tractor and go over and state of that damin ring......CASE/MIGCARE



STAR BRIDE STAR

The surgest differences as surgest block perpetitives votences and perpetitives to unite more The surgest discount myth and Hollywood house time? Not wood house time? Not wood house the surgest surgest sources as a surgest whose research indicates the of the house is a dash whose house house is a dash whose house house is a dash whose house house house house is a dash whose house ho

Reporting in the South Aboan Medical Journel, Dr. Potrett Hamphill and Dr. Tuvah Zabaw, of the University of Cepelowin sity that they recently a sammed three unite vomeres.

We have officially diagrooed vamperam. Hemphril states and can assure you'thet there is absolutely robuing in the least supermating about 4.

All three vempires. Hemp hill and Zabow say con fessed to a constant, "imisistate unge" for blood and 130 DWN aless our exemplement to impose toor own. All had recurrent steams of bloodshed and seach and none could stoog hap he own falos in the record.

Die vangen sämtlich feiligen and tellen hie nicka and insukters of his see partnara to saak their blood. Heng wardes Anoten said had worked in hospitalis when the booke drick blood silvended bortwentserne. The their said herd managed to obtain heir sapptly of bood by statiting somegens and tellen ng heiges from tords.

While vampates are rare therriphill and Zalbow conclude They are a "possible cause of unpredictable revealed it manual.

End Mishere

"Staniation in paint lives continues to attled this pendor in the prosent one resulting in a computition to overest." —Earth Flat

ALC: UNKNOWN

Affect burbor seveny seven sat with his forhing tool and his dog, wathing foot dawn to bring the bork catch of the day to the canal barries of Atlanthot English Heid pair guarded himself a cup of hol lise his says when a giowing dogwat "canal Exwend the brings. Landarg with hol to balk on the water

We contracting the dist occurse and the study and the study on the study with the study and the study one study with the study of the study of the study one study of the stud

Burtoo bays he was never immerved (A seventyseven he explains 'you can only de once' He as a set mark to the shopp and observed the rosh lade into the distance. That matring, when two military policemen tysppunitid to meet up with him, he was still lating.

I biaght three rudd five reach, and a tench ' he ceimly told them and I eleo take a UFO '

Na you may know, I am a card-carrying mamber of the Analgameted Flying Saucinit Association "

Protect F. Knocksch



AUTIMATTER



Accel to search we develop to ensemptimes of the fill before theory of install-leys to attract to see prevention and the structure to ensemble to and the blockly ray weapon the structure to the block structure to the block block to the structure to the checker is the place attract the block of the structure to th

We must have the words Einstein, you say Wet maybe builted 155 the Footeral Bunatu of Investigation Those are just a few of the perpetitized, according to a 1500 page FBI docsory on the control chrosest

The massive his was recertly obtained through the Previoun of Information Act by Flohion English proresson Richard Schwartz. In the Fillies, Schwartz isoserve Pre Chrocole & Holgerrowert Sergeward & Insteinn ein interniver, often buckcruze rowert genomen die Insteinen owere had appewerdty served umber hat beit he was a Sangebuut sückverster. Vir umer had buit um insteind umber hat buit um insteind umber son buit um insteind umber son buit um insteind umber son buit um insteind umber aussizie of anneal in weis capitalize of anneal in when gespläte of anneal in when gespläte of anneal in weis capitalize of anneal

Xriything one man cen magine lotter men can mak mer

- Alies Vers

the second second second second second

Greek mythology elds of the hearon Jacon rind ha rea of Argonous Including Jacobies and the twin sers of Zout Tha occuragoous soam logend has (; tought the Armanos Michaeshall woman crassbuss called Hospos and delete fartsatio monates during a particul upgeto and theme the Golden Fereop But could thas be nd amazing tale?

scientificative land closerie scientificative land closerie estatuti no land closerie estatuti no land close sci estatut closerie land closerie land closerie estatuti ne ancient result estatut ne ancient result estatut ne ancient result becard which is a scient science land closerie science science sci cost March is a science sci land the science science sci land the science science sci land the science sci of March Index Science and land the science sci land the sci la

Severin who hopes to gather evidence from Sove This historical speculation is connect. "It is rise it to it unheart of to get an epic hall is criterly maginary." No explains for instance Medea was noted for halmagina potons and instructure feature long come into Europe by way of Europe which is actioncent to survey basin sector have basin

Case Thisps, charmon is the clearce#46.bbl University and the clearce#46.bbl University and the clearce#46.bbl University and the learner of the clearce and the learner of the clearce and the learner of the clearce of the clear clearce of the cle

Sherry Baks



AUTI MATTER



IN OWN PORCHARDS INTO AN A STATE

This past spring, where enrupe from Tokys to Ansher age. Atsias, crows on the commercial 7476 spottod, huge, multihoom-attapad cloud and hacked ahead to immobale tectoact wematasetering barrow.

According to Capition C: 14 Michaels print of Japan Ar-Linas Egit 058 The Kool was about 500 the Kool was about 500 this multicult miles from the Annual making a downer of 200 miles, and movies up to a margin of Boot Sar The plane experimised light backets provide the Sarad or direction detection. The cloud heat provide and sarad and heat is dispeted and heat and page of the same of cloud heat provide and the and heat is dispeted and heat and page of the same of concellence.

Upon landing McDades plate and lour others---Flying Tigers fights 72 and 131 Cent Ali, JAL passenger tight 413 and Royal Dutch Anthos by to 80 - never tested for contemnation. But the results of the tests according to a defense-agency spokeamen were neostive.

so what was no huge mathroom-shaped cloud? Probably just that says Pederal Avaton Av/horthy podebaperson Plant (Saucha "Wore celling it a standing thouse (Sene-scaped) cloud " ha says "Adhaugh hosy usubly occur horzonbity they is occusionally seen standoro".

-Sherry Baker

Ye I Studied the magnified softens of the moon upon the screen a small annual softens the area (was obstriving I could see that it was four legged and furn; but its speed prevented me from clearblying it."

George Adems

WAREHOUSE WORKSY

Mysistrous in vertopsi containing crucio one-dollaroblicitative battikot Florida oblicati from the Pantencia count 50 michiopal managora have received the envelopers which bear no teturn addictation massage, sand to a Battimore Maryang, poarwark

Deal-bolds City Manager Arbeit Chandler for instance reported that has office resoluted that has office resoluted that has office resoluted that has office resoluted that has office and resolute resolutions ball was possed between help posses of green carsball was have determined with the between help that has been and the set of the post in a money in the only and has a ball out our bown is have all and about our bown is

When I had get my collar just assumed someone wanted to repay a police off our for loaning hm a gation of get or something like that, radids to be Wilson meyor of Medicy. "Thon "sound out all these other people were recorving bills too. Who knows? Maybe someone's trying to put a hex on us?

Head on not in o other that a dolar as to whice some the money but when wond spread about the Float da makings community officials in other parts of the country amouncied that postal they too had received the constores. A couple of onling advant lists readmob Maryland city manlages and mayors server cardona knywa were put on the maintoo tat as weri

While the mighting may, never be solved, receptorts of the unsolved currency are blong their workful in strole Comments Creenances, Poinds of y administrator Welly Douthwester. "Live already spont the oxfar." Barry Baker

When J go down to the graw, J can say '7 have instead my digd' work ' but J cannot ag, 'Thave finahed' my 48% seck ' This longs is not a blind allary, it is an coon thoroughtere is obeins in the buildpt to open in the deam.

-Yester Hype





This rever a two years ago come pocide pocide correctingement of two kinds of inductations when the transmiss. Two weaking research point theory could repeat the tergraph of the unvertices will have which are multiplying each year. Offer the mechanism potential to improving the low of included per form the composition the term therefore approximate and importance of the included per form the composition of the provided the included per form the composition of any of the included per form included per included per form included per form included per form

Perhaps the most important tocors improving the dimete for the utilization of research as that, knowing inflations tow and accors maintaining institivy economic gravity so that the private exclor has sufficed incentive to meet in development. I am committed to keeping our economy growno at a health incentive press.

Give: Indexts and computer promision duce our workloads distributions promision also always proving us with mose leaved time forms social psychologais warn that the transition away from the preventing work ends with the others. What should the occur ity do now to pagare for the influx of elecbono servents with our leave?

Rengers 1m not as all use that the continu-

Ing before layed involved in a gaing to forbactering and come we work on the yob provide gains and the second second second second testing more calculated and may be applied to weet with the time stogging frequely table to weet within time stogging frequely table to weet within time stogging frequely table to weet within time stogging for werk. The stogging to table the store of the store second people may be computing to werk. After all not very many people have the table table.

But i can back to my domain of this may, that the work where the management of the interaction of the second second second interaction of the second second second interaction of the second second second back to back the second second second interaction of the second second second of large all continues to second second second second second second second of large all continues to second secon

Once the July 934 Once physical Fleet man J Dypo velocities and the second time in history escalable have burned wave form alvaneed behnading help found unpetitable or dangerous. The rejection of such technologies her used has order form considevative groups in sporty ruch as milliony isotration of the world will be defined party constraint. The technology in ruchers



war before the turn of the century?

Beagar: It is my tops and ball that in the statege datase induitive we have begun, we are winessing an effort to damante if not the sectionalogy of russian warr at least in thread includes attack, and we are looking to technology—the technology of datastive system—to accemptibilit the

Similariscopi J believe wire seems screen on content sprata discreta di nuclear wespone. Invisora sego oni head produttori sha nuevo di se data mittari pavent ha prolikinationi di nucleari mittari pacopristi na sha nuevo di secolari mittari pacopristi na teresti avvid assiste mittari pacopristi di contine seccendi tri him nucleariwespon povers on the sprata di accontenent qui adocated antiraria di accontenent qui adocated antiraria di accontenent giu adocated antiraria di adocatinata di ama contenenti di adocatinata di ama contenenti di adocatinata di adocatione di anticontenenti nella di adocatinata di adocatione di antira in teresti adocate adocatione di antinata di adocatione di antinata di adocatione di anti-

I do not know how or if the advanced countries of the world will be able to fully dismanile the technology of nuclear war but I do believe that we can and an saving stops lowerd that goal

SPACE OFFENSE

Orwar, You ve been a consistent supporter of the space program. What interests your about space? How would you respond to an invation to ride in a space shuffe?

These is another very increased, which is a work with the UB paper program that is work increasing the process of the sector program that were the sector process of the sector proces of the sector process of the sector process of the sector p

contract of the space station can be harnessed to produce rare medicines and manufactures concormental aleys We equid aleo expect to use the space station for in numetable auperments to gar a greater knowledge of the parth

In my Saxe of the Union Access and again recently the London economics again recently the London economics and the development of the pape station recently a statistical statistical statistical space and the colorement of the tervecity space and the colorement of the tervecity concerner economics of the statistical concerner economics of a statistical concerner economics of the statistical parts of the statistical concerner economics and the concerner economic data of the statistical economics of the statistical statistical statistical economics and the statistical statistical statistical statistical economics and the statistical statistical statistical statistical economics and the statistical statistical statistical statistical statistical economics and the statistical statist

Now as to the fined port of the question in becoming President. The already had the gradient finel anyone could have To oil you the truth if such a high bacomes possible into moch rither give my block to some appring youngilter and respective the overill through his or her each benefit alterward.

Deep The strategic defense intraziva ravalidati nyour specification Maphwel cost biforto of cobines Tha pian propensiti by Service Metcolm Whitop (Higsuplean Wyoming) for Nemiciva lises showing with the intraction would voi foresee in specificity for ovision space projects if the Landa States were to noncompliant birth soft.

Pagge Finit of all arcminate absolutely from the strategic detense instatues [30] and tween the strategic detense instatues [30] and the survive neuros program. To Licertarity durin terretain the two offerts comparting for funds. All information strates are imported and the index offerts compartended and reporting an allow can be an anantifier and reporting an allow can be an anisting and reporting an allow can be an anantifier and reporting an allow can be result out survive (in a derighter trucks age. They are the output definered trucks

SDI's objective is to allow the superpowene to dearlicely reduce—and possibly someday eliminate—our referection huge another of othersee nuclear weapons.

Bight may the only captor we have is the muchain inclusion standing the second standard constraints have as a constant cloud own on falser. Armo extension is control, gamma larger at the second standard larger at the second standard larger at the second standard participation of the second standard material discussion in how our children was the fullows. I am discussion in the second standard to but children and connect histon to our children and connect histon.

Desir The distrigueneet space wher Jamos E. Oberg warried in our July issue of a serous finest to our satellites in geowrich or-



ON ELECTION DAY in Jack Daniel's Country it doesn't take long to find out who won.

There are only five precincts to be heard from. So the results get tallied pretty quick. And our County Judge has them posted

right on the courthouse square. This November, there's no predicting how our citizens will be voring. But, no matter where in America you live, we hope you'll be joining us at the polls.



Tenenssee Winskay - 90 Praof - Deallid and Bottled by Jack Denel Darflery Lew Koltwe Trap. Rode J. Lytchberg (?ep. 384), Tenessee 37352 Placed in the Netonal Register of Nationar Places July the United States Government call other. With a single peer, in hadde other could wave out all of car what determine stellthis here. The attack work/request what and guess of severals explosited on under the guess of severals explosited. We all out of the same wave has work every an other opporter that of our stellation. We all out pays and the word wave of a supporting wave of the power that of our stellation works of the power that of the power that the source wave of the same wave of a support the works of the source wave of the source wave of the source of the there?

Record in them WY Observations provide outside servaus area of concent, one have these the characteristic of a large or an antibility desaring the cuprent of a large on antibility law webs provide the cuprent of the large of large and the large of the large of the large webs of the large large of the large of the large of the large of large of the large of the large of the large programmer A large of the large of the

INTERNATIONAL ISSUES

Corry: The Expan Control Adt, which show the bit the bopch of bermin high schnicklogy to some countries, service a useful pumper of the service of the third further bits of the some beam the Pensagon and the scient features many additional terms of increasing useful to aspond and what sained of increasing useful to aspond and what sained they could the shows be induced whete shift preserving relevant security?

Reagan Let me suproach the question by

othering an sendary biskneth orkine and elevates laceholder. Our there-interprete industrial system, in conjunction with unversities and power that the elevation world in the development of a restantial compretages allowing when the south an implementation of the sendar the mechanism of the sendar the mechanism of the sendar the

Well we have a similar buttom with regers to weapone because high internatigers to an emposite because of the internation and the similar and the similar the similar that an Bousts mark and near weapone because the similar the similar and the similar the similar buttom his West and the Common terms of the similar the similar the similar of the similar the similar the similar of the similar and the similar the

The heard screep people suggest that a few simple rules outside cere of the problem. Just believe the balancing inclusion and national-waturity objectives is a very very complex task. Moreover, wallever we do can't be really effective unless we have the cooperation of our Weetern after who pro-



duce and export similar technological goods My own preference would be to appreach the problem by assigning the highest possible control to those relatively for value and perhaps wonying loss about the more commonly evaluable lastrological

Dever Campical institute Unided Statist here become advances over the eta well allocinan and no tense effect on hits, tensor, and harr natural resources. The National Acadany of Soemote reports that for currentiatual explosions is well-and to acad tensor. The Statistical agains to recommendiate statistical provided that the mean land to acad tensor. The statistic science one power paint to judication with the tensor tensor and the statistical tensor so and the statistical to acad tensor tensor.

Plagar: Acstremme perplannog problem White it may be particular and industrial companying on particular and industrial companying on permitti investigation in companying on permitti investigation in companying on permitti to access and a companying on the stacks in the part it would be unwater to ack the particular of the unwater to ack the permitti-access to apard many there is not permitti-access to apard many there is not permitti-access to apard many there is not access when any interaction to any barry of the permitti-access to apard many there is not permitti-access to apard many main transitions which any inservations the main transitions access the in permittiservations which access the permittiservations access the permitti-access to apard main transitions access the in permittiservations access the permittiservations access the permitti-access to apard main transitions access the permitti-access the permittiaccess the permitti-access the permitti-access to apard main transitions access the permitti-access to a permitti-access the permitti-access the permitti-access the permitti-access to a permitti-access the permitti-access the permitti-access the permitti-access to a permitti-access to a permitti-access the permitti-access to a permi

Im confident that, just as we've developed cost effective treatments for citiet taiand weter-polarise problems, with soon have ascentifically sound beels for melang substantial invasitie on the problem.

Deeps' Saudi Arabiati Shekhi Yemani reparity saud hat Arabiati oli would agan ba used as a political weapon, possibility as conty at 1617. Do you have plate to contral the?

Peagain: Wore tor less dependent now on imported or, explicially of kom Alab CPEC rations, finan we were just a few short years ago. Moreover: our shattogic pottekent indone—which is four timos which was when we took of koe—is a confecting insuface policy against any designation.

The time receiving or the classes and with the time market exercised in technical ways that the market exercised in technical ways that the receiving and the classes of the technical technical and the technical technical technical and technical technical exercised and technical technical exercised and technical technical exercised technical technical technical technical technical exercised technical technical exercised technical technical and technical technical exercised technical technical and technical technic laim of shortage or large price increases un Wey Ot course, we recognize that our drive are more dependent than we are on of som that segion. Were discussing with our alitis, actions that we might partly take chould that over the reconstance.

DOMESTIC ISSUES

Ceve: Arrong today's students who will graduate inom high solution, sightly four peroant do not solutly geometry. In the Soviel percent do not study geometry. In the Soviel Union is students are inspurited to take ten years of geometry. What would your adminstration do in a second listim to conscit clehemenus an external site hardron?

Reagan: I'm convinced that we do have cause to be worried stoot the initiality/ly low prochy weby given in room years to experlance in oducation—not just in the technical subgrids, which are territaly important, but receiving a cross the board

New the encoursepage time is that in the point time version or an basis provided to began as change. As they changed be compared to the test of the second second as schedard? Not and in tack times has never bear much consider to when the amount of money append by Westernie from spores chapped identify for terms possis chapped identify for terms were subaccional in a conservation and in pole ton Local communities leading pairwise were adaptime. "Bod basis there are demainlight high-quality education that will be new beginning at back to basis. This turn alound nearly strends when the Nasonal Commession on Excellence in Education and the appoint strends the Basis and the Appoint strends the Basis and the Appoint strends the Basis Merror By Interwey that equation called the arrong other thesis. Strength methanis has a referent callon and the logablant to halo.

We can, and are, dowsing new programs to improve the resources teachest can draw on with composers and new information technologies. And wo'll continue to meker it clear that exicution has to be right up there ar the teo of our spontal prooffee.

Deer Apple Computer in Collection to green perty intra tradient computer to attract under a data crogator permiting Appendixes when of the integrated conflict merend cold to Collection to permit 50 of internet cold to Collection to permit read to the Collection to permit the formation takes begun using the Methodogy of tomorous Administration pulliteral twee has gotten addressed in Conpose Weddy our read administration pulltra a twee collection to permit to Collections to the collection.

Reagon, I think the potential of computers throughout our apolisity is almost unpouncied but computers are set the only

solution to our education pachiams. While its an exciting opportunity, we need careful planning and properation to gain the full impact on the educational process of putting corrections into achools.

Were point of them to term have to use comparises tables in the additional proease Basevins should learn to use the compare fault to compare the fault as the allbit manual strategies and the strategies and the methods the real advantage of the activacompare of the at the Compare Hegels = (1) to the the object wave can do it lease a vide example of the at the Compare Hegels = (1) to the the object wave can do it lease a vide example of the at the Compare Hegels = (1) to the the object wave can do it lease a vide excepted in a part of our particular the addate popular. But has been derrantations the Metric to Faculty parts in the addate. But the math as in the transmission

Due pair tensing hardware even "16 or the exagement the clock only needed with the critical desired. It is the turnar element the backtrew, the turnar, the control over the ortical addition of the technology, their wellhad our prease action is not populated to add that our prease action is not populated to prease any measure action is not populated to remain our additional actions of new mediations downloaded to be additioned on the control output the mediation of control backhools of news the control output the

Dever Not long ago an organism was proated in a laboratory to spray on oranges to polact them from troat. A develop-free to-



When you're playing for keeps.

Collect events worth keeping on RCA Video Tape was RCA Video Tape you get excellence in bidhinclogy and quality from a proven leader in video. So everything you keep is collector's quality.



becop plant has emerged from another absracey for reinter of hose organisms has reached the maniphase because of investis blocking the reliance Should heat be new folderal regulations governing the collocate reases of allo runside organismit? Should we pass new lang governing the research of this in the allocation?

Reagan Naturaly, any new technology, especially one of this magnitude hast to be examined to potential news. In special or our enhusement for what if can do for us in medicate, in agriculture, and owar in theavy industries, where exercising a lot of catulon.

Bit I can't hep be reflect the over the poil devide work with a superfunction to setty and texponetation in the lation because the setting of the setting of poiling thermetwes fluctures exempt also poiling thermetwes fluctures are also poiling thermetwest fluctures are poiling thermetwest fluctures are poiling thermetwest fluctures are poiling thermetwest fluctures are poiling to poiling thermetwest fluctures are poiling to poiling thermetwest poiling t

Denie Saarford University instruction to that it would nationger do Pertagon sportsporter meaning of the Pertagon instead on propulsication review of rosearch results what impact does a docume like this have on reserval security? What is your mosponse to a scientist who argues that the star. government tencils to overclassify and prevent the option of coefficies (www.long): Reagan Viel, I shock this saw in got blows and of tencontrols on a particle of basevel allow when they learned integration of the same index when they learned integration of the index when they learned integration of the index when they learned integration of the learner of the same of the same of the overy angle one in the coefficient index the allocation research relation the allocation research relation of the integration of the work, and which the dimension of the method and allocation.

As it happens only a very small amount of campus-based work is classified and we have no intention of increasing that in



fact, we have rockrightables calcen to were samply derivated the controls on the basic msearch in house areas of academic mesenth factorials for milling value in this Board turon, such as the mathematics of coole locations, and the mathematics coole locations, and the mathematics of lines (here safely are unless controls between nature social score) and the the a open exchange of sporefic information in the academic world.

Greek-Organ transplants have become ta more common as doctors have introved be yand the research stage. Not the opena tions are shill soo expensive for most peopleto afford. Do you favor any kind of govemment support to allow people in need to get a transplant of a vital organ?

Regark for a trappert, the formal gacenter strategy bars based of the actification of the support of the many operation of the support of the support of the support support of the support of the support support of the support to allocate support of the support the support of the support the support of the supp

Write also working on the oppidy importent ease of the oppidy of oppins, which immery object loopidy is the infinitely labor of instrangements when more limiting than cost At my devoter. The surgeon general mass beginning and the American Council on the oppinship of the amount of the amount the oppinship of the amount of the amount the oppinship of the amount of the transplant Nahing and Labor and Labor and adoutth and the mereal persistence in our while to be oppin domain and Labor and Labor and the people to committee once the same CO



RCЛ Video Tape



CENTINA, BLT FREMARINE ST. 123

Humans before their metallic favorate to wre the claring fight to the clearth Before 2000 0, 2000-2020 0, 2021-2040 0,

2041-2060 0 2061-2060 0, 2061 2100 0 Alter 2100 9, Nover 9

27 A person matrice a domestic robot Before 2000 0. 2000-2020 0. 2021 2030 0. 2041-2060 0. 2061-2060 0. 2061-2100 0. After 2100 0. Nover 0.

28 Books stop being primod and become available exclusively from databases Before 2000 GL2500-2520 EL2012-2010 EL 2011-2050 EL201-2560 CL2681 2100 CLAber 2100 ELMover EL

29 There are more computers than televisions in American households Below 2000 0. 2000 2020 0. 2021-2040 0. 2041-2050 0. 2001-2000 0. 2051-2100 0. Alter 2100 0. Never 6

30 More people work from homes—using computers—then commute to a pol Before 2000 0, 2000-2001 0, 2021-2010 0, 2011-2000 R, 2001-2000 R, 2001-2100 R, Aher 2100 0, Never G

31 Nuclear fusion provides 60 percent of U.S. energy needs

Before 2000 0: 2000-2020 0: 2021 2040 0: 2041 2000 0: 2001-2000 0: 2061-2100 0: After 2100 0: Never 0

32 The superpowers per longes to destroy an approaching correct that threadens Earth Before 2000 in 2000-2000 in 2021-2040 in 2041-2000 II. 2001-2010 in 2001-2100 in Afric 2100 II. Never 0

33 A colony is established on the moon Before 2000 to 2000-2020 to 2021-2040 to 2041/20504 2051/2050 to 2051-2100 to After 2100.0 Never 0

34 United-field fieldry confirmed Belaes 2000 0: 2000-2020 0: 2021-2040 0 2031-2000 0: 2001-2060 0, 2081-2100 0: After 2100 0: Never 0

35 Underses city established Belase 2000 D. 2000-2020 D. 2021-2040 D. 2041-2050 C. 2061-2050 D. 2061-2100 D. After 2100 D. Never D.

35 Socoer becomes more popular in the United States than toolball Before 2000 to 2000 p.2020 to 2021-2040 to

2041 2090 01 2061 2060 01 2081 2100 01 After 2100 0, Never 0

37 The first production of Hamiet in which the star becomes if and a hologram goes on in his place.

Belave 2000 U 2000-2020 U 2021-2020 U 2041-2080 U 2081-2080 U 2081-2100 U Alav 2100 U Never C DO

SURVEY THE SPACE SHUTTLE

The Space Transportation Systems Reference

NASA uses it! So do nowspaperd/Why? Because this book apporting ALL Shuffle systems IN DETAL and in PLAN ROLLBH! The sections explain all flight hardware and software. Ground facilities, meason and human support and much more II is an good as a ride!

Eary to read tost with over 150 disparse and color plates Eph1 mays in V soals show ALL 2,000 orbitar filight controls. Over 270 hardbowd pages with a gold Bruttle stamped into the cover! The Space Transportation Systems Reference Clear, concise and intredbily complete Call now and order the cented Derivansa cit!

\$24.95 U.S. FUNDS INCLUDES UPS COURIER!

Money Orders and Inquiries to Apogee Books, 28 Learned Rd., Dept NDC, Toronto, Ont. M3B 278



CALL NOW - CALL FREE 1-800-268-6364 CONT USA and CANADA VISA/MC/AMEX ORDERS DNLY

The 1957 Ferrori Sportster (imited edition) is considered a tare classic by many and in year high demond locks.

This highly defailed 1/4 scale reption is authentic right down to the involved hubs and roll subjectives. Hoad this to reveal hub detailed 12 cylinder multiorthuritive engine. Yurki opens to expose a removable space tire. Doors actually open Recurit Listower de engine first.

Hand assembled in halr by Burago International – a world leader in aufrantic discall models. Type laced wire wheels are completely immovable. Funcband interna system allows for easy laming on your desk. Utwo-hand metal bady will bait a litterme %% fora-Weight 1() be. One year wormhy

Carnes with a 30-day home that with

o prompt refund if nat

park this formous world elassic on your desk for the price of a lank of gas

ORDER TOLL FREE

Credil Card holders may coll our toll free lines. Order #W828 for the 1957 Ferrari Or send a check for \$29 ptus 3.50 del (Dicter two for fill also 450 del (Dicter two for



Call Init free for mar entering of unique products.

Living on the razor's edge?



Are you ready for Thursday October 11 1984?

If is the obset of ESPECHADE — the first depot magazine envolved of large netherworks of spins, secret spins, reduction, or assignation reads cover ups, secret covers, the read woman who conduct and maconduct the top-secret works of government spins, and more, are all in ESPECHAGE MADAZINE, 164 pages, spin temes a year.

Check your local newsstand beglowing October 17, 1984, and be sure you get the promose issue of ESPION/GE to collector's fem/l

1 topic for a management. To get a subscription to the softmerity fields, besity fluctuated, teach-new say mapgeme, send ST to be assing a off SD eff acwaterid problem (ST SD effects) eff acwaterid problem (ST SD effects) and and to SD effects). The SD effects and and to SD efforts (SD effects) D effects (SD eff) (SD eff) D effects). The SD effects (SD eff) (SD eff)

NT/2010/Phose In

Signaling that his brain is humming. The Sege and I are in communication buckcur medium is methodied is the lithtee that appeal on the acreem. That issues is just one of many stip hals inthronteen is outned, send to make up to the lack of lise-it-face contact with its weath of nonvertail oues.

Networkers will have in works to give emakania/calculation in their communication My handle is Bone. One user animal, vie oppose, were in vurineer enacement hat head batabaturtaremen agelinder the facebox use descurrent of the current method has batabaturtarement to bace conversion. By using the kinst of device networkers hause of the enaction ally impovenities nature of the enaction ally impovenities nature of the method in the device in the second status of the method in the second status of the second the second status of the second status of

As all a singlet bar two lonely networking tray indicated other move with the provatable mode and develop a relationship that may keep them issnaked as their account or rights on each is a sumewhere through the mass except that it has an interactive component one that allows for major exploration and expenses. Some network stranabos have been known to result in manage

But these is a vitel invite/cer is computer instructival and invite/ceres in a computer cores. Networking serves botter in indealing intercenting that in computer cores. Networking botter partice must ge beyond the computer meet face is face, and theil with their but compared in human being.

As compare references segment in the event-field county, the average particular will be deaded to the owner the county of the periodic particular average information of counts that allow an elevation of owners of the average even metaded alwade on elevated from average even metaded alwade on elevated bey can average here it here alwade alwade on all alwade on on even in othic alwade on all other on on even in othic alwade on

This is not availity need to human oppornase. Progle cost available of whether the telephone would make it unnearable to telephone would make it unnearable to us here boarnesse from a torce phone bus one to be a set more based on the telephone would and works a bit protot bits bits would all hand. We are been from the cosdepined to the set more of the telephone would all hand. We are been from the cost occurs of based to be a bits proton windfall proclases (Dater Mage the annual report for the bits?).

But we can thold back the tuture For some it is already here. Three professors I know at universities many miles apart, used a computer retwork to collaborate on a book. They wasse chapters directly into a certific computer where each could estimate and revise the other's work from his office

Today of population is measured to make more asservation, transfer finds, or nontradium-methy pinces, tradit from Sublem, the computer, which all charges debired against the condition and account. These long deversars will do other in non-weldy and a risk. As generation are indevided in the area of a parameter and the area of the area of a parameter and area of the area of the area of a parameter and area of the area of

Even now the equivalent of obscore phene calls plaques computer intentions computative want is users to employ decent language. Vicitins of obscore merages can exercise the "squad" option which reports the drift sliker to a splitm operator if enough complement come in, the upper la through complement come in, the

What else for the twenty hist centrary tight new we constructional available pairs insue we construction that compairs insue on the construction of the pairs instruction of the construction of the segment fragminant insues the object appears in the new all facility that benefits in the prevent move all facility the benefits in the prevent move all facility the benefits in the prevent move all facility the benefits in the term the respect to benefit fragming the to basis German Russian, and is on the movement interface approximation the material interface approximation to the material

Doer trailing can the districts based human and mathematic models of the second Registrow when I correspondent will burhous on the correspondent will burno on the correspondent will be a this such composed into the second packor low Riss a program that models packor low Riss a program that models packor low Riss a program that models barrier alloguistication for human rely barrier alloguistication for human rely barrier alloguistication for the Loogle I contemportal second models and the Loogle I was released in the source of the Loogle I contemportal second models.

There may not be all that a unset III need emerginary metics allow rend of tooles to deal with programmed apart involvem that and the state of the state of the state of the profile of the state of the state of the state profile of the state of the Dirich material and the state of the state of the Dirich material and the state of the state of the Dirich material and the state of the state of the Dirich material and the state of the state of the Dirich material and the state of the state of the Dirich material and the state of the state of the Dirich material and the state of the state of the Dirich material and the state of the state of the dirich state of the state of the state of the dirich state of the state

I SUPPOSE

Hele's to your health. Son?

Again he hed to stop, flushing, for he sudstreet from which they had come that quest place of marble huts with great names out

Your health 1 the son said quety

"No it's not Mall said the son. "That's ust

a bed whe nearly

YOU QUIDING IT SO TASK?

father. Web! the table with falce

Just a joka Ma

Why did I wha?

said Rt come to me Don't push Father

Sum oure 'oaxi

ing father. 'But you

"No Alion, let me trish Son that place

No if's not, and you know it. The latter picked up a fork and draw a picture of the place on the lable cloth. If it too damo small heating-my God, the heating?

"Well it does get cold in the wroter," and

'Cold hell. So cold if runs cradits up one ade and down the other of all the places or th there. On and another thing, i don't like some of our neighbors

You never liked neighbors anyone any where anyhow said his mother. People next door moved out. Thank God: you seed

Well those are the worst they take the cake Son can you do anything about #?

they don't know where they ve come hore thiny don't know where they ve been for

Malta you in your shoes. Don't look at me

"Have you got a headache Son?"

And authority if was all over. Exactly one knile and fork and linished his fourth class

coming back te me. Why I called why I

'Weil?' said his mother

Spit it out Son, sincl his father

Yes yes?

He words pushed he parents back in their

"Hell Son" saidhs father. 'We know that

"Molbert" med the fruntzalarn Youwe

Don't make prom to is what I say But elon did you want to

son was shocked

No. He canned his must and reached

J wondily he thought has anyone ever moved anyone out of a place kin that to m-00 a 165

The water arrived to take their orders

Whetever that man over there is eating " said the failers

they de quickly

"Wel--" The son slowed His page way silent phone boots where he had placed

"Chicken! The old man exploded "By

punching her husbands am What's wond

me for tworty years you'l never know. The father turned to the son 'Daughters of





Like the surger bernes in Beefmater Cin. It's true. The very best isorper berries in the world grow on the sun-warmed slopes

The world wouldn't be the same without Italy, And neither would Beefeater Cin-

BRAVISSIMO FROM BEEFEATER® Why is Boofeater?--the - proposing a loast to Italy? For one thing, to celebrate Columbus Day For another, Italy is the

home of so much that is rare and delightful

of the Italian Alos. The Beefester recipe allows for no other kind



You can experience . . . COSMIC CONSCIOUSNESS

Casacwarneys It is your lask with rafin-

Release the Psychic Self

The precise self is a darabeting Conme Prover that all burnans posters, bur

This EREE book

The Romenscont are a worldwate cultural Order (not a religion) For contaries they have revealed and muche the little-known facts about meat of life. Write for their fee book formulas, but it does tell how youlike thousands of other men and women-may receive and abate this fascinating and mecful knowledge Write to SCRIBE KAO

The ROSICRUCIANS (AMORD) She lesc. California 95191 U S.A.

"Hush Let Son tel us all about them il soid il looking up at the meny tro

There's nothing to set. The son paused andwardly "Hell there's bits But it doesn't

Ty us and the father

eves down. I have this feeling my daugh passed away and you you're alive! Does

Pa sad the mother

Woll he did and he does diaminit Tals

The son poured write and said "I can I

"On the face of 4--- the father becan

werve got another problem here. Hate to

Whatever the Dad Twill said the sun

No Ineeriwa 'sadite soo Ibon yaa

oves, and he began to roar with laughter rights eves with a naplen. T bose you!

"Sonv Son! coeci the better lears fun

He didn't stelly mean- passed the mother tocking back and forth cliques epcaping with each breath

Of he did, he did!" shouled the son

And by the time the last boths of whe was Which set them all off again finno cul-

The cipril look so down in the mouth, said

They chank the last of the whe lauched a bit shook they heads then welked to the

Well' and the son. It's been not

hupped and kased and wept and than gave

"Heto Helen he said, and paused bo cause if year hard to led words, difficult to say. This is Ded. About that dimain next asason Overwork Fil call next week, set a

He hung up and looked down the long

More Dad he thought Helen Debby And

And then laughing until the tears roled into the restructant. His laughter made a few

feathert it wasn't all that had DO

FORUM

CONTINUED/FROM PAGE 16

midled effort. While it is has that there as zone aniversimilation and biomedical resparch being done it as fitcale programs that have been suit registicantly to increase weapondtoblasch expenditures.

Stephenston alluded to some vagouil, added valations for my leaving the lab sho has no direct knowledge of live, nor own sho support her instructions. Of course my "privala rughtmans are i chose to work at Livmmen and i chose to leave when saveau offer options have available to me.

I am sure that Stephonison is concerned with the possibility of nuclear weil. I pope everyons is but nuclear determines is at best the shooping craps in Las Negas and ADDg your removy nile with resch roll—one bad roll of the disa and you base rewrything Own nuclear with dot the castrie is own

Editors note: Leavence Livermore Neterna Latinstary dealaned to connect on the segrator of Bit Perry Jr, or on any of the face serviceding his heaving the lab.

The questions missed by Juli Penry in the Field Word we cellshifty worth domaining. It is not this invites it svertmore however, built bootbiller to built hermals in this domain. The nuclear weapons in the United Bases or Egifand do not werry the built we vergoins in the Stovet Unites do I solved publications. I would held to see it this movie flay Atter shown on Bayes TV.

Lib not balance that we have to converce the American people or the government of the homes of nuclear war instead of constantly recting instance, why not give us some procoosi way to get the Sovial leadership to come for a verifiable and the source?

> Máx Currangham Karsas City MG

But Percy clams that has learned much term listing to response and well informed demonstrates and the describers applied operating the second second second second demonstrates and the second second second a more they related to the second second distances. The they are second second second distances and the second second second distances and the second second second distances. The they are second second distances and the second second second second distances are also and the second second second distances and the second second second second distances and the second second second second distances are also and the second second second second distances are also and the second second second second distances are also and the second second second second distances are also and the second second second second distances are also and the second second second second distances are also and the second second second second distances are also and the second second second second distances are also as a second second second second second distances are also as a second second second second second distances are also as a second second second second second distances are also as a second second second second second second distances are also as a second s

In this preclambus nuclear age, we should not show admittedly intervise leasing to cloud our relativity. Hence the motio of the Veuban Society. Tuit leader govern test?

Asn Maleria

With all due respect. Perry sounds much like a number of self-serving populabilities i ver met through the years who are always eager to tump on a popular bandwater.

I am pussied by such statements as "sansized and builthaned by my cwi-rights activities during the Soliasi and in 1381 and 1982 when the intensity of the muchanweapone debate was at na casis.

Has he forgotten the Oubán mislaie crise? Surally a palaki of its rown, it was an overo that would brand our country to an exergness of Soviet intentions concerning the acguistion and use of audear weapons.

Are we to believe that Penry learned the baa nature of Lvermore products only after to hod spent 20 years in the public-relatione field and then accepted a posterior as the labs public relations director?

After some time passad. Pany restined that demonstrativities really are informed about policial and military alteries. It's a shame that Peny card are the pane for termail.

The oblight of electronics is not result to desired 60km in Basics permits to be prove to the Bowel Union do a support election to be oblighted. The unclear stable on the United Stable would result in our support and only to multifarming party if not experiently electronic to the oblighted by bombards measures and waveheads here made bombards measures and waveheads here made in prevention and unclear energy account on the methods on trutagia area machatolication cales.

The arms have should not be allowed as continue unclosed at the allowithe United Butter to delete of the weapon's systems with out inplacement while the Bowel Union conments to build up its weaponer implificated the nuclear disaster Peny lears. If would be a difficult scenario tone the ones he magres however.

Party single that "his divern furned into a rightman." Exhair he dirent do his home work of heis not failing us the whole story to that what he broke will be advice 20

> John Tommanen Harrioton 10/00

Enter the fascinating world of the home rabot

Take your-

Tevon

Computers.

HERO JR, will wake you in the märning, guard your home at night, remind you of your appointments for the week, and entertain your family throughout the day with engaging small lake, songs, poems, games λ , even strolls around the house.

Introduce your family to the wonders of robotic living...for less than the cost of a computer. For the name of your nearest dealer,

"Call for HERO JR. at 1-800-253-0570" Ask for operator 2 (In Nichigan, call 616-632-3454) Heath/Zemith



Screeping who can ward, ingrAder Tayl Bo, the set of the set of the set of the set of the case of the set of the set of the set of the case of the set of t

But the Ewrops haven Tuby carried 1 offunderscoring the universal wesdom Tuby weah and power are not oncup to poplas web boring And there university to posanarby to those verses whose diswings portwyoot the characteries autoid alor. The tiggees almost never dispet a character in a makes or packed statement. Were leave Some are highly postured, shifted, dreased, and defield. Many are incomplete, suggest, mg the actors themselves back a sense of closure. Many are dearchly said and anyrouse themselves addearchly said and anynoted have upp a bite strake body and they postch timese the effort to saidly put anythrap approximation. Tablies house any party and any and any put anythrap approximation.

Audio from the attroot overpresent as provide the typework uncertainty overpreproduct to the typework uncertainty overpreproduct of determining the subjection and pairs of the type of the subjection and pairs of the grant of the subjection and pairs backets and overtrepresents on mean-tempotal operations and on the way of the pairs of overtrepresents on transcontery on the grant operation and on the way of the pairs of overtrepresents on transcontery onesentation of the subjection and the other mean-tables clears in standard on the way of means the operation of the subjection and the operation and the subjection of the other weeks clear clinicary. The optimum of the observes and outper on the substration of the subjection of the subjection of the substration of the subjection of the subj

"Discosity" Moore says "Dallat motitizes and organizati aborg much tendencies to play worth or persecutiv perly or prediator The socie to exchanitment" is of occurse, well worm in Annicon TV extentiarment if is fair loss tentiler on television in the relial of provenning boards that prefer to select wholecome programme Attocupt Datas is not in most of Europe and Asis in topped in Nagasab. Why? In Europa aan Utabis Moore explains fundal power was tased on translations. The bindasis ware thing southout in any power play in Japan the louds tradien atems from the Sentrare-ware effect and the import site maschates, who wonlose prone to teet tomans as chatel

JB is thegain indifference to the waters of all an order Adversible may also turned that used of the model of the test of the model of the test of the test of the model of the test of the model of the test of the second test of an extended tamily tasks and agent include a discondult free story as a vision of the second of the second of the second test of thest of the secon

Mono supports that the more invested of this till let the time in hery solared in Dalser a continued success. She handles that the same and the same sum as the same sum sums and approximation of the same sum as antimetarian dependence of occurs, herein and success applies of applies of any solar the same applies of applies of applies of any solar solar applies of applies of applies of applies of applies of a paper of applies of appl





carria like a thin woman with rough, cur heir on hor head and arms, and a long, fine faca with yellow eyes. Two of heir children carrie with heir, like covore pups.

Coyote looked at me and said. 'Take it easy You can look clean You can look back "

I lossed back and ober Urbid the simpl Back and back and being across here. I back and being across here, and back and a set of the and back and and an and a set of the set of the and back and an and a set of the set of the set of the resp. If back and a set of the set of a set of the resp. If back and a set of the and back and and and a set of the s

Coyota had a flight senging voice like several voices at once. She seid: "Do you want to go on from here?"

I said 'I was going to go to the Sun"

Go ahead This is still my country. Copola said that and then cama paid the on the whol acting on four legs as a coyote with her pups I was standing alone on the whol there for I went on alead

My steps on the wind were long and slow like the Painbow Dancen' steps: At each step the world balow mail tokied cifferent. At one step if was light, at the next one date At the next steps it was isotoky at the host

over a first must long step, takes and give stress of a shirt out, broken stress gives and given gives reterring a life lines within and entrying on the subless of the works within and entrying on the subless of the works were entrying on the subless of the works were entrying and the subless of the works were assumed any them is when a warring a life of the subless also. In close shifts a warring and and the bottoms of the costs and all of the assumed and the subless of the software of the subless also. The subless of the software close of the works of the community, life all all places long and the one the work, then the subles of the most step of the software of the subless of the works of the community and all places long and the one the work, then a subless of the most step of the software of the subless of the most step of the software of the subless of the software of the software of the subless of the software of the sof

If had been sening, and clouds were still dark in the northweat. The run shore on the leaves of the forests in the carryons of the mountamede

Of the vision given mp in the Ninth House I can tell some parts in writing, and serrie I can sing with the duals, but for most of it. I have not bunch words or mose, though I have spont a good part of my like new randa learn spont a good part of my like new randa learn is alway to kack for them. I cannot draw what I saw as my hand has no gift for molling a women.

One reason it would be batter drawn and is hard to tall is that there is no person in it. To tell a store you raw, 'I dat this or 'Bhe



saw that "When there is no il nor she there is no story i was, until got to the Ninh House. Dereve as the bank but was not The hawks was the still ar was. Seeing with the hawks ryes is baing without sait Sofia montal. That is the House of Etempty.

So of what the hawk's eyes airw all I can here recall to words is this.

It was the universe of power II was the network text and instant the intergets of all the barrys shows and galaxies of sime works, animals minds, terves, dual, the barry strategies were part part of another part and the whole parts and a being thist), and second the whole parts of an other part and the whole parts of another part and the whole parts of another part and the whole parts and years.

At the Extrange is a long if the the department ensures in the CS operation Strucmonous red the other that CS operations Strucmonous red the other prevents is a unregardable disclosures aiming the Static II in the vector of the structure of the other in the strucence of prevent ensures of the other into the structure of prevent ensures of the structure of prevent ensures of the other into the structure of the structure on the waves of the structure of the structure of the waves of the structure of the structure of the waves of the structure of the structure of the waves of the structure of the structure of the waves of the structure of the structure of the structure and all integers of the structure of the structure operator them waves of the structure of the theory of the structure operator the structure of the struc

There was a descort or drawing away, and which was what might be called the code of These I being human rocal as having hu the vibrations of energies, closing her parts from gyre into wheel This one was very strong and was cappled. He worked as bisclorreth at the scrittry making whools of energy closed upon themselves, temble with power faming. He who made them was and her of burring write but s\$1 he turned the paths of energy and closed them into wheels, locking power into power. All stourd the wheels turned and ground and milled Trone ween other beings who carrie as if fying like brits in a storm fying and online across the whoals of fre to stop the tunning and the work, but they ware paucht in the wheels and burst live feathers of fierne. The miller was a thin shell of darkness now very ing and was ground to dust, like time black.



Introduced particle rcg, and terminal and proprinted and human in paradia. Survey, one and human in the properties and operations and basels not the --torn or an enforcing, descriptions, and the --torn of the description of the second second second distribution of the second second second second by in the theory of the description of the second second second second second second second by the second secon

These step operating the function is also by a set of the set of

I had been in the vision for the risk loss days and right on headery for Days of days and right of the fixed point. The head men in the heavings all here all of the many Dan Days i could hear the longmany day and painterina is well all other where it paint entropy the long days and where it had entropy days and where they were appropriated days and the long days and where it had the long entropy days and where it had the long is not in all where the set is when it had the long is not in all the in the long of the long is not in all where it is not in the long is the long is not in all the long and in the long is the long is not in all the

They waked me to later to the Morring Carol, that was the first time in twenty-one days that I climitated fire ladder and saw the main that day the day of the Sin Reyno.

The people denoting the Inner Sun had been in charge of me They had told me the! I wilk in denote and the! If approached an-

THE IMPORTED VODKA WITHOUT THE IMPORTED PRICE has"mouthfeel."



vodka and move up to the import without the import price.





When I began I shought there was nothing to learn. All thed to do wile say what I had not only what I

Milk worked with works "Brweed worked with works drum and metrix chariting They had me go very slowly taking very lifts of a pre-samaanes one word only end represeing what it had been after loss lift and any with the matrix chart so that as much as possible regim to taky received and given and could be received and you's again.

When I logarit has 15 nd out (HMUII Iso any Hot on the see and when the grave company not innormalize wead obtain to any hot of the second second second that is wead when it is before it have that is wead when it is before it have that is wead when it is before it have been begind at of and that even if a meanband second second second second second and may employee. We have some any mark of the speak day with an eith before a second second second second sec

Tarweed explained to methal as Heirned to apprehend mentally what I had percoved in weer, I would approach the condition of leving in both Towns, and so he seat. Thereis no creat hearty

I said. But a will take yours and years!

Ho said. "You've been at it for a finusand years already Galt and you were an old acut

b) bothered me that leas often not size weight Tawais and parting or not physical weights Tawais and parting or not physical transmission of the physical register and thep

The vector of way, were pleng excerning large registrations and and of Mell even at the most of him had been all and of Mell even at most of him Well at the column for "S He was a grice, there are not was langer of the Lodge. He were at the was potent interestment for the were at the was potent but in was from the time manners metaded currents 19 will locging a master globes was in the woods and fields an extern globes was in the woods and the backcall threes. In the Lodge, He is locging the standard starters 19 will located there say the and globe. A most fullow the locate and threas which the potent. Theread

talactual men are used to havrig their caportes doubled and their achtevenetts subtack he did not seen to med her arregarce as much as I scretimes did over to the point of lying to defend him against har once saying. Even if he is a man he timbis like a woment?

If do no good of ocurse, and if twee party have it want whole have been been been outer that the second of the second of outer that the second of the second of the second of the second of the been second of the second

I did not understand that i twes very much althad of open out of the laws way much early again in take thinking and dispare. A hast month on alther the San I began to real and say that I was shit west and it and could not leave the hyperium To this Tain weed aad. "Nai About time for you to go home!

I thought him most unfeeting. What I was working with Mik. In my wony I began ching and presently I said. Twish I had never had this vision?

Mik looked at me a glance across the sys. Me bang whoped in the face with a then branch. She said. You did not have a vision.

I serveled and stated at her

You had nothing. You have nothing. The house stands you can tree in a corner of a or all of a or go outside it as you choose. So Mick and and list me.

I stayed alone in the emoil som T began to look at it the small ware room with estim wells and toos and root underground. The walk ware earth, the whole earth. Cutade them was the early de whole sky. The soon was the universe of power 1 and in my vision. If was not in me

So I went home to live and try to stay on the right way

That compares along a tweet to also heavy note a straty with however on the Billood Lodge in straty with Mills. My hearth was sound built don't also have the strategies and the strategies and leaving balance when the strategies and the leaving balance when the strategies and leaving balance when the strategies and leaving balance when the strategies and leaving balance with heaving balance do the balance of the strategies and the strategies and and all Mill hold regress in the palance. The balance of the strategies and the palance the strategies and strategies and the strategies and the strategies and strategies and strategies and the strategies and the strategies and the strategies and strategies and the strategies and the strategies and strategies and strategies and the palance the strategies and strategi

So I wert back to working with power I learned the art carefully and soberly and set no more ling. I learned chumming with Tarweed, and speaking mystery with Mik But it was all slow slow and my feet leapt powrg, Nei and molectron The renge of heronhorose rate wave in mining with a hind born huf was the order of my Jost in the born huf was the order of my Jost of the positive and leads awy from my out of the positives where the horses werd bod meric tertwisely, all hough my moth with a table towning, all hough my moth a good abait of hous . It open to be not a good abait of hous . It open to be not weeken maint .

Hold Tarward nothing of all this shame preventing the not did I ever speak of it to Mik has perventing the

So the Ward was Gancial and new would come the Moon. The though to this damos make me more and more ingheated. I have tapped by 4 When his fait right of the Moon cartie. Livert does not my heymax meanned to be tone compare. I banked doesn't my outs to the tone compare. I banked doesn't not have tapped ywaterer. Amount it ponce i ontered banks and wert who the hexae of ansar

In that house it was black and hot with a yellowish glimmering like heat bighting and is duit multiering noise underhoit and in the walls. There was an off-womaninthale way black with our many arms. Bits called me hot by the sense I heat multi Berry but Flader. Thorizer come heart I Flader was my name but I wherebod that I flader was my name but I duit hid non-

The did vicencen send. What are you subing about? Why don't you go huck with your bother in Chaikmar? Dasse unabout an comption MustRotice stanse ownar Ought Not as a abase. Chengy consistened turns the wheats of any Look what you is dragging whyou't if your any our unit begins how can you handle power chemient law that? Super soon Suppresstor!

I laund that my legs were both fastened with both and haspa to a huge bounder of segentine rock so that I could not move at all i hought that if I fail down the boulder would ret on the and such me

The old woman said. What are you wearing on your head? That a no Moon Dance vel Superstition Superstition!

I put up my hands and found my head covered with a heavy heimet music of black obsiden I was seeing and heaving though the black musiy glass, which came down over my over and aars

Take toff Flicker! the old woman said

I SHED FROM BE YOUR DEDOINING

mel prested heaver and thokes on my head and the boulder pushed agenut my legs and back

She cried. 'Break tree' You are turning into stono' Broak tree!"

I would not obey her. I chose to disobey With my handa I pressed the obsolgen hermet into my east and eyes and lowinsed upal it tank in and became part of me and I pushed myself back into the becaler unit in became sent of my loga and body. Then 3500 their wy will and heavy and herd bot could work, and i could are and hear much fait the doub grates wen not over my soot and ayed bot was part of hern. I saw that the house was all on the burning and smoldering, four walk and not A heart bot a cow was finger in the smoke housers here to hone went. The old women was burning, her colones and final and here modering. The cow leave finger in the smoke housers, there are not out would her and nota to real. "Size the net out yourd her and nota to real. "Size the net out yourd here and could be real. "Size the net out yourd here and could be real. "Size and final better get out."

There is nothing but anger in the house of anger 1 said 1 NoT

The cow cowed eavys, Sater less's water water of the sphrit' Then I have out hoseing the birming wait of the house. Just all work is asset back it new white manus lace boachil and storey, with curly fary hearthermap yourn? Then the waits of the satirk down into the waits of the Sergestree heymas where i was stilling durining on the fitner-role duwn i was still durining the difference of them.

After that vision 1 was called Flicker that scholars agreed hard in bost to use the name halt hat Glandmother grows you even if you don't do what sine cays. After that waon, 1 wint up to the grange of the fliver as Crosshad scal to do, and after it I was freed from my based for yourse

The certail vision is certail it is not for appropriate certain index them is noting outpoint i what i benefit in the Neth-Netsen is as a cload or an impact in the odd of term. That is agains in them like on them that the networks where and attribute to me careful and haven in the mental sail even of control terms of the mental sail even of control terms of the mental sail even of them is how haven on the terms and them control terms of the mental sail even of control terms of the mental sail even of control terms of terms and the about a control terms of the mental sail even of control terms of the mental sail even of control terms of the mental sail even of control terms of terms of the mental sail even of control terms of terms of the mental sail even of control terms of terms of the mental sail even of terms of the terms of terms of the mental sail even of terms of the terms of terms of the mental sail even of terms of the terms of terms of the mental sail even of terms of the terms of the terms of the terms of the terms of terms of

The libraria carrie and the people care is the second second second second second second second temperature care and the second second second second protect Alter and the second second second second protect Alter and the second second second second protect Alter and second trained according to the second second second trained according to the second second second trained second second second second second trained second second second second second second trained second second second second second second second second trained second second

So in the heat of the summaritima I want with Tarweed upriver to the Springs of the River at Watwaha

On the Mountain Fliwed in the host-house of The Setpenthis and worked mostly as declinant's assistant at odd jobs around the satered buildings and the Arothive and Ex-



The Expanding Search

Today the boundaries between science and religion are signify similing Could in be, a many sciencist are now concluding, that there exists an underlying unity? Are the answers to be found through an expansion of conclosurness wherein truth is clearly perceived?

Paramahanya Yogananda, Iounsier of seli-Realizanon Fellowship, said, "Trath n so theory, no proculater system of philosophy, no intellectual awight Trath a esset correpondence with reality. For mar, truth is unshakable knowledge of his real nature, his sell as soid,"

The more than half a cornery, Self-Relitation Followhy has been reaching asternitic techniques of meditation and like-integry central that you can ten in the likebraiony of bactering techniques and the selfbrane of meditation you can transform abstract truths infolung really. As you begins is know and impress your real nature, you discove theminine issues of all like speculate, abstract truths infospeculate, abstract meaning of your existency you will know.

SIND FOR FREE BOOKLET

P	lf-Realizatio	n
3580 Sm	n Refeel Avenue Dept 40 eine California 90065	264.2
	THE O LOD DOLLAR OF LOD OF L	the street
"Undream	ed of Possibilities"	
"Undream	ed of Possibilities "	
"Undream	od of Possibilities "	
"Undream name preser cry	ed of Possibilities *	

change in the morrang I would correl outdoors at summer. All beyond and below the porch of that house would be a went plum, no beprinners, this summer log filling the walky while the tast asy of the sum brightaned the roots of the Mountain's peaks above me, and I would ang 45 I had been taught.

This the Valley of the puma where the ton walks, where the ion walks, sharing in the Seventh House?

Late: In the ramy season, the pains wellked on the Nounteen fistel, darkening the sumrines and the Springs in cloud and gray mee. To welke in the stence of that reintess, allconcesting flag was to welke to discars, to breach the ison streath.

Much is leach day on the Mountain Tapant Much is leach day on the Mountain Tapant in the Twymias and at amas slight those 1 Walworks at the techniques and versionness of Walworks at the techniques and versionness is explained and the state of tendersting, of executing, and of musics I did not pretage and the techniques and the state of techniques, and of musics I did not pretage and the techniques and the state of the them, but practiced reads in giving and with the drawn.

That, as many people have coappetited response of how vescenarios like 1 expected a stranced, athletic, accetor contension always pretched lawards the metabolic in tact it was a suit and of the When people are in vescen they can't look after there are was when '

they come back from it. They may be externisy treet or exclude and treakdated and in either case, need quarteries whould be inactores and demands in other words, for like childbase rig or any hard, manae work. One supports and protects the worker Newooning and recounting are much the same, theach rid caulus to lated.

In the host-house I facted only before the great warker, if the lightly with science care of which flocks I als, and enable little lives and which flocks I als, and enable little lives and which flocks I also are going in the wester or revision you, don't want to keep charging popossible and going in a different way through schwenses, or carevals, or tandosinging or whatever Why you want is modration and counting. For ear is no scittatic of course charandree matter, that a notwork but but more

Soft to fail led in Webershes was delived percentul, much line same hom david to dej and season to cesson and sudof mol percent percent and them to the line devices reference and the same home and the devices on the devices and molecular and the hash been given mol type and thome to the software and the same the same to and the same type and the same to the software home to the same to the software to the same to same the same to th my Me telling and drumming, going nito wsion and coming back from it, dancing in the beautiful dancing place of the Five High Houses, during from the Spirings of the Rwar

The Gauss was late in the third year I lived in Weijewaha. Some days after it and/or and some days before the Nenry One Days begin I was stock to go up the taudor of the Surparente two theory the Near Neuron Lande to me I hongift the was one of it the people of the hongift tail was one of it the people of the hongift tail was one of it. Dance the Surupan the Nearthan - Ficker and state the tail advant Might point of the sold learn how to day both The laughed and the vap us the travel her of the relations

Other people came where I was standing at the tool of the lastder. They had heard the heavis one and some saw her fly up though the entrance of the heavings.

After that I had neither vision nor revision of the Ninth House or any house or kind

I was bench and selwed. Theil lendle gendop had been had to bain to bring back, to shan and give and lose over and over. It had all sen beyout my strengthand lives not sony to cate revisioning thus when I shough those backware when mind must soon lever Welverth I baget to great I haught ween my lendle, long ago when I thought ween my lendle, long ago when I though ween my lendle, long ago when I



THROW A STAR PA

LEI ESI LUN

I thought not very knot, and answered

on't block your intellect by bankaring after

people came not to know vision from imag-

while I was working there on a hot day a

perecivenment, very fond of Shiwater and the

helds or in a quet house when the doors and closed to keep the source cool. That was my lifes day Before it and after it were the twelpfits and the dark, when things and the shadows of things become one

Due to be soon - and the verse is enabled, the net only generative tail statistical to learn with the Doctore longe on Whee Solution Creek as soon as the ordinant he provide private and by the time to way, learning he way works and by the time to way, learning he way works and by the time to way, learning he way works and by the time to be all leads as taken young at the Longe much of the time. The younger ded when he had leads as to be provided weaking and the all leads as the provided weaking and the soon and all any or creating weaking and the any of the time to be different to the source of the time to the all head and drawn his to the for the solution to me ones to the way with the laters and the time me.

chail by He was like all fib nivek that came into ones hands for a moment learness but huit Aller ha ded Saleesher toot heart and baharmises but huit Aller ha ded Saleesher toot heart and bages integraphics ha did home. Phase risk and wert back to Chaket max to tree in heave Somethers I want to somethers I want to wait thin them.

To verify back to my advanced hows my mahawi house where my garandwalare and meller envisione and out and outside the advantage of the source and the source

In the Blood Codes

Tably an old warren's had a schede by son come within is see her and helps the in the recovery, and since sha was done in the world to say whether write share needed help world to say whether write share needed help it sured her to have more there and so it would be the start was booting for the last name and the start was booting for the last name and boot the was booting for the last name and the start was booting for the last name and boot does not here it was to whet it wanted in could hear them here it was to whet it wanted means the start was booting for the start of the start of the start boot here it was to what it wanted in the start was booting for the start of the start of the start boot here it was to what it was to boot it wanted the start of t

Drie day a talk before the Summer I was working in the storage barns above Moon Creak. The At had put in a new generative free and I was checking out the wing to the threshes, some of which needed with608000 This This face been at 1 least work (gave) been colds dually caref space fragment been and the second second second second to the second se

The people laughed a lattle and the darkestione and in a high soft yours. Backing They looked behand them they and work. He ci chese

So am E said Tarwood And so he was He had cled live years ago

control when when it was in missed, when i washed it was only reach to be shut into the House of Earth. I did not have to go in and out the doors if only I could see those whe did. There was Tarwared and he lesighed a life. I kut he more

He did not say anything more but watched me in the shadows

Whin I was done with the work he was

When I left the bath I saw the barn owl high up on a raiter sleeping

I went homo to Mika household. I loid her at supper about Tarweed and the more

> began to cry a tota began to cry a tota She was week ance the stroke and her faccess sometimes said You were atways atwaid of me going shead of me

I had never isnown in the the she here is now of the limit of the result of the limit of the seried to brich at the way we will be the releting a Sometbody has to gone the door i laded information the limit our releting a gone the door i laded in the process the the process and the way were a selection of the way were a select of the limit of the first o

She was bewi dered at linet and could not see welland complained Thapeople began to speak and after a while the answered them Sometries hey spoke this language and sometimes 1 aid not understand when

The dynamic cargo of the bolistic M-566 is a writed with the spin shall be bolistic to the spin

away quickly this quality. Somebody else was here. Left one life onli of lear. At test t could's Lear-ten clearly in that twight of the oraw (space. then Loae it was targeted.

You never ride horses anymore. Flicker he saxi

Riding is for she young Terweed I said Are you old?

Nearly forty years of

And you don't miss noing?

me once about being in love with the roan horse

- No 1 don't mais that
- Whel do you mis
- Marchine and Control of the
 - why should you miss him?

They wald but she arrayward them ouggary When the power lead they went away pusetly and I helped her to bad. As she began to go to sivep. I take is this child come and the chain beats him Silve put her arms around 4. Every right after that until Milk deal in the

Once I spoke of it saying "your daughfor Mit toked at me with that whoping look in the one good eye She said. Not my cloughter Yours.

So livespillisthcurse now with the daughter i never bore the child of my test/over and with others of my family Sometrias when I sweep the floor of that house I see the dust in a shell of suright cancer is nourves and spirals. Indexing DO



EXPAND YOUR HORIZONS, THEN GO BEYOND YOUR GREATEST EXPECTATIONS

Now given the time to majore a lowburgers of parts when yoke the recent major explanation of the second second second second generation of the second second second second generation of the second second second second protocol second second second second second protocol second between second sec

Every day can be the greaters day of power life. What would make provide the batter I using weight? Becoming a new day of the second second second attract I hadden you saint to day attract I hadden you saint to day weight attraction of the second Willow Larssimous Suddensai Audo Tops Adeg you of a SCMR² weighteres your despert desires and addiest theoget contacted DOS, positive messages, blendor you being attraction at the second point and the second second point and the second second point and the second second point addiest theoget of the second point addiest of the second point

SCMT * success is guaranteed. SCMT * subcrease incompositions are corporate to use and have helped people into all wells of Mix stress production upon wells of Mix stress production upon antiercritism and large city public deparements / while all Authors, to through antigent products and insure city public deparements / while all mix and insure city of Author datasets in the analytic largest products and insure city with an anticologies products and insure city of anticologies and anticologies anticologies and anticologies and anticologies and anticologies and anticologies and anticologies and anticologies anticologies anticologies anticologies anticologies and anticologies Hough research at leading universities. Our products we bucked by the heat possible guarantee. . sate/action or your money back

Why wall? the has a two personal ansated with an SCMIT[®] program, you will begin been a defaute charge as you tree the world with a survey, once calso. Whenever been from R. Row Appens, No major what jour espectators, way gai appare them R will be a new We, stylepass them R will be a new We, stylepass them R

Free information, fill out the couport below and we'll and you arbornation on the 63 objects tapes are oblecified "The Bost in Non" and "Develop Your Createwart, in "Weight Loss", "Demo Couport," and "Develop Moritostan"

MIDWEST RESEARCH, INC. 5315 High-land Road, Swite 203-71 Partise, Michigan 64654 Picer and PIEE Member in SCM ¹⁵ Subbroad Audor Eges.
NAME
ADD#155
an
SWIE CO

NTERVIEW

CATINED FROM NOV. 111

tion? Do you think it really method where a business is located?

Note: It was an implemented to balance the second s

Paraze that the shift to the Bouth a speone to the Bouthwart and Ponda—not the Bunket and not the whole Bouth I some times advise denote on an FTC policy—Norde Torous and California—Docasa today about forty percent of Americas population and economic growth a taking place in pail those three states.

Oten Wil New York, with its cultural across terms, alice complexes to be strong?

Neeket No. Marriatian will maintain teef as a very important (jokel ewitching elision and internotional millione) in the four boolugins around it will serve even turther here toek of the lost tee mitteen of this population in the Service and teel exclusion of the population in the Service et al. and exclusion of Manhatlan, it will continue to generate

Oton: Why is entrepreneurship and creativity flourishing in the United States?

Name: A American Inter american an antimetry para list appears have hough twoweak every even an among put We rever do water to the second second second second second performance and the best potential and have an anti-best potential and the merg proper and global doptention and Asses more hagenic immigrate it about to consisting. That will you have it all own to consisting. That will you have it all own and constants. That will you have an anData inside got even informing mechanism but they're of mein'r so good as this rich mix of Arrencers is at making settware. Eo not by charten we have one hundred the tern holdel Prais wernes and Japon has two Chren. Did you youtsi'r invert be famous phrase Agn leichtiger kover?

Nearth The When you suit high tech into a receive that incrimingly that displaces hucours have technology that displaces human barrys to sensitive man. They have the sensitive processory they have to be a sensitive proorder to modely and our instructive or human main. High-tech displaces in all will be the order to modely and our instructive of human mains High-tech displaces in all will be the sensitive that the The more exceptions in all where the failed that displaces are excepted as

The crivitismic the introduction of the introduction of the introduction of the international part software parts of the part of the international parts of the international parts of the international very new parts of the internation of physical physi

lochrology boost culhand antivor/2

Naisbell Theres a consessione of apertuality in this country limited taking about the religious rowwal, but albout a widesproad minereal in meny monitostations of spettawity espocoly at The Japa new moth the data of bags incomption the Japa

Courtry, many Japanese reported to me the miniwed interest linear in the tradicistal acbaneous in the set attangement, and in other toms of apertuality throse are savely high-touch compensations balencing themcroteble interunt of high tochrology that has been pumped into that nockety in such a short time, in personal nationariange we wall compensate for all the technology we have to put up with

Orm: Does high loch/high lauch explain the trend back to manage?

Namber I confi funk we know yet, but if's a very good candidate as an explanation. Neel important is fluit maintaple previously the only option is now just one of maintaple chooses in a multiple option exceety. Everything is down now-if is okey to get mamed, or not to to have a lot of childran to have children with out getting minied, and so on

Cite brend boday as for unmanied worker insing the end of their chabbening years to have a child cutede manage. Other worker getmatisted, den't tree children unit their lake thirties, and their go back to work. Thereis just a matigated of antargaments and ways and allocations.

One with Boy George a took superstar and Parts fashions offening skirts for men is an more year of the tubue?

Nastitit After hundreds of years of mechamo and pathatchal values we are now seeking a new balance a more equitable sharing of size between the sexes. Well see

Personal:

plays to onic lategate an endmost Look at the waves of notalized on Biosekneys for examples to tack and a linear objective fragmanic tacks and the second second second second second on the second second second second second of 1 percentally lead linear much more willing to a distribution and a graduate the second second second second second second on the second second second second second for example, lust range have the linear homes the second second second second second for example, lust and explore the second for example, lust and explored the second for example, lust and explored the second for example, lust and second second second second to display the second second second we will relate hands as a realized rate to be set on example. The second se

> erful very bonding with thisse other human spatts whom we naally loved a lot Other Ana you now shifting away from

shifting away from emphasizing practical reality? Nacentr, Well, Libera

Needed: Wei, I mire John Southall of and the equivalant of the mire what you can be the southall of the southall the southall of the southall the southall of the southall the southall

Iocal bar, seeks other Bushmills drinkers. If lagres all the time offer a Buhmil of the edit of the film or to wa says that the set of the film or to wa says that the set of the set of the set of the Remain of the set of the set of the set Bahmills is reported which first the set of the different of the set of the set of the other different wall back defined 3 much

So be of good chees, Just think: if everybody knew about Bushmells, these wouldn't be enough to go around.

Bushmills drinker, tired of petty abuse in



The term want of these to be want use and the manufacture set. We will see more than the term want of the term of term of the term of term of the term of term of term of the term of term of

Your years old. This is write earlies which they outed. To a very timbled earlier I protion this lead of healing because I know that among believes it a writes. It is as real as the couch youre stimp on Ome. Also, the necessarity Seventias, are

we becoming a less safais accest?

Nextent is no every to set that near in young proprior a set initial interve corporative frain competitive. Incomination of the second as the medecade in a wong. It was not sufficiently and/or that means that before we narcessent bullion man encourses in than before may there may be load than own in Lerone that the whole society is moving from intertioned help to a set Nexter Arrive program asangline to find new concern well health. There be two kards down the whole responsible fits to doctors. Now we're taken preparately to to doctors. Now we're taken preparately to the popping and the set of the terminary werry about motifiers and so on a whole fatsessminary is apparent taken indexico of an albeen characteristic all fits and the observaing and the set of the society and the obtem because and the set of the society and the terminary metal to the solid or all the obling and the set of the society and the obling and the set of the society and the solid terminary and the solid or the observation of the solid or the solid or the welfare to the government in the like takes and our welfare to the government in the like takes.

Orani¹ Receipte seem to be relying mote on themselves in finding a mate. How do you exact to the latest wave of belephone neorid ing personal with an which you make a soles pitch for yoursail on tape and an agency page it to telephone cellers?

Needed: Some Ce an abamot to get more touch to a needing is statively official. It you recording week played to a worthank recording and you have high recent disconance, nothing would happen? Actually the sounds more to me field the awayed proteeet networthan the base would be the more of handowing occomments, would be politically. Cin the whole I thank toomhology thousand auto to more furthant politically. Cin the whole I thank toomhology thousand auto to more furthant.

Overs You strongly believe in the future of comartic love don't vol?

Naudat: Vas. Im very commence about 4. Wery commence. Therecan induktionalises are access to get us through it of help us deal with techreliage if we are every genry to be occredul able with it. The quarkly of our initiationships becomes more anyonization to reliable to obalises it for some other manifestation of help lood—the achieves and gene mony of us the helpmistaneous and gene mony of us the help-

Only We we see note many of love and work as it wore—more any numbers of humorized and with heating work?

Name in the my with reference and these comparison in mixing and the second se

Deel What do you think of tim cirector Seven Boelberg's policy of staffing his company almost emergy with women? With all these energiese competent, and ambitious the OMI

women coming into the labor losse why don't

parameter year concerning water the extension of the mice su what makes it lick. The energy of a mice formatic auchence is of locat float makes that of an silemete one. The same goes for age groups I wouldn't time only people in their twenties. Response, streament wide digree of participation of sluctionsci—Insight a different floatmitter weather.

Orevel Buy tail, sent means town and work a best thrung? It once lead to too the m your Well. Neesbett: {Loughs upnearrouty} R deal Toocher Absolutely Well anything can lead to recuble. Why put the bunder on the leadwer to toeshin?

Over Yours a great openal Dont you have any negative thoughts?

Naded 11 the scored as held of nucleis holds care. We all basis a periodial recorrectly these international score is because in the Sowel toma because the resist patients in our relational spacing rank the Yike into a basis was the parel intervention of an ending holds was the parel intervention of an ending holds and hours a basis of a while during hold and the score of the parel intervention of the parel and the score of the parel intervention of the parel intervention. The score the ability 1 is describ related to the strate relation forward to the factor hold.

Onny Wort a global element or society help to reactive the problem of a connects Pus

Navelit The group eccurry will be choud by valving beautinet read eccounce whethe perdences level need eccounce whethe way. The shading devel of the Scientian entimer definations and an engle change in the eccounce permitting devel of the Scientian entimer definition and the science of the eccounce permitting to an itema what have been developed and the excel to accessible the temperature the much as accessible.

Overy Have you ever made a precidion about which you were other graffyingly right or embermeanoly widing?

Name: I have of source othern to try years back theory eyes to when i wan lawling to do his seven i clean law layed barroot tilled and the seven i clean law layed barroot tilled to be barroot to be barroot to be and to be barroot to be barroot to be and the county i also barroot way walking the county is properly and the barroot barroot an time one, when process layed way barroot as time one, when the source of the set they were the source of the set they were the an provide to be one of the set they were

Orem: What fatherly advice would you give a young tubers?

Note that the set of t



Now lets apply the same principle 30 costs of the display of more predication is detailed by display of more predication is detailed by a second same display of the displa

In short the heteropenety of the new tocety demands registr levels of information exchange than did the homogenety of a mass sporty. The information explosion and the new information technologies allo a responde to the need.

Furthermore many of the latest tools cleregreed to help us cope with the groater hoods of escintail information actually lotest or facilitate still further diversification.

Compression on the intervention of the intervention of the intervention of the properties between our of the intervention of t

But diversity in the ordinary serve is only part of the story. There is enother important lactor as well and that is the speed of otherperited!

The factor france change the more what mation we need to bear with new conditions in neally part appoint care of the principal methoded above, because change can be expected as downey in time. The state of being at one moment becomes differentiate more intermediate the principal state of the more intermediate of the state of the more intermediate of the state of the

To Low map diversity contract with associated characterized as toxic readow with we as experiencing on information replaces and the second second second second second harman barring as it were all very high peeds—stope that her Applicability likely More of 10000 years ago Toxice from the result a stratistic profiliation of stop years ago the second second second second second more barries of more second second second more second second second second second second second second more second second second second second second more second second second second second second second more second second second second second second second second more second second second second second second second second more s

In short, there are reasons for today's information Revolution, a significant living point in human culture DO

Copyright 6 1983 by Alex Toller

GIANTS AND DWARFS

STARS

By George Lake

Crues as row undercovered White is as you undercovered White Crues are now amaging that some of ringht to heldon in black these sumaning galactic dwarfs—dwarfs that are as moreover as central

For screens the disease how when this tenses is more to advacis their model the cyte (or his 4 kay, infrand or gamma wy thissoppe). It is is less the line infravent that galaxies come in a valety of screen and with gwert starts, and when is not to exclusion with gwert starts, and the confusion with gwert starts, and the galaxies amount of process and discovering that altocuph cleants may took smaller main guints they twee walks the salar main mains

Autonomesis gauge the mass of a galaxy by examining the velocities of objects in anyong the galaxitation forces and the ingher the velocities of avoid more outward from the performance of a galaxy its brightness dimension, but as more increases. This deal moder a concertinise of black holds, is called a dark halo II was depoved in 1973 by Sover sesearcher Jan Einstein of Inh Tarta Observatory, in the Uniani Astrophysicals J. P. Darkar and P.J. Paebas, of Princeton University were the first to publicate the findings

Over the years, all innot of galaxees have been found to possess these dark twice group paraeex wind the third distribution incoming, assophysical Bob Schermer, of Paulyos Liversity and L, using the Way Large Array ratio telescope in Bit August this New Workco discovered that eliptical galaxees there them as well.

Mere Assertion of the Binwerd Deserve boy, in Anzone was the first to becave the converting was any inside dwalf galaxies. While charging to exolory messarmonits to loand evidence for mess that was served tracking cristel if that Bid of the wable cars along Add when Schormmer and it studes a serving of a linguing galaxy means of a braney part of bent's the galaxies of base parts that leads was hage hearty that of gard to be the mean was hage hearty that of gard balaxies.

If you add up the fotal mass of the value



The VLA (Hery Large Army) telescopal What matter larks in the halos of galanes? VLA knows 55. Dete

matter in the universe—the matter that measurup stans—the sum does not include the total measure of the universe during the first three manyes of its existence. But when you include the dark masses of the galaxies the sum does agree

This sector very doal if the doal will do a doal will be will be a doal will be a doal will be a

Well, we have that is work all lower (pathos) could be a set of the second lower (pathos) excepts in the second lower (pathos) excepts in these affect of the set. As they need another (pathos) is the set pathos ment toward the center of the gatery address the second lower is an except of the center of the device there of the ment or pathos provide well and the second lower is the second lower of the second lower is at the pathos of the device there is an original of the device of the ment at the center of the device well and lower of the device the pathos of the device the second lower is at the second lower of the second lower is an original of the device the second lower is at the second lower of the second lower is at the second lower of the second lower is at the second lower of the second lower is at the second lower of the second lower of the second lower is at the second lower of the second lower is at the second lower of the second lower of the second lower of the second lower of the second lower is at the second lower of the second lower of

From these cosinitio independence, we now obuse that lass to an excisent as samply abthe identity of the musclener is revealed to the amendme datactive. They of lead to the data halo is which of gravestatis for the first generation of alian Supprovia explosions condanised them into black holps, leaving a logicity of losity metalis containing much of the universitie universities.

PAINTING

To one has resterial and proved once and for all what the stepposurus looked that -1 couldn't rest too 1 pol out the old monograph that device that has observed in the massuring transformed around the site/box massuring transformed around the site/box anything. Soon my dock was pelod with shears of poper teo array survivals boxines drawn to the serve scale. These gradually more with a site/site/box

¹² First carrie the venterial column and all or coge the nogic harm out to be longer and more standard that is appears in most fixable to the notice the notice is carried in a global of course with the try shall fixed of thereby logar to the notice physical transition of the standard transition of the global of the gl

Most response to a logislamical at their Teportram sustained provided that it horn't and a provide that it horn't to a second that it horn's and a provide that the revealed not all all cohered and a provide that the revealed of the second to a second the second term of the second term of the second term and the second term of the second coherent and the second term of the respective and term of the second term of the second term of the second term of the second term of the respective and the second term of the second term of the second term of the second term of the respective and term of the second term of term of the second term of te

I was not however able to resolve an other long standing depute Most relationtions of alegosaurus show two tows of alterelating, uppetin, transplate phene normal along the backbone, ending in pairs of spinoang the typ of the tail. This may be correct to the planes may be paired indice than alservation. The relations are paired indice than alservation. The relations

The prevenues and their ormalise relationships of the terms of the second secon

son: The begast of the tyranoseurs and onstrommids were probably should is fail as horses and ostriches.

The checkin is a vary useful animetific undestanticity (checks) restored and the direct descendance of such directours as the websaugator and their muscles toppensity finder of the short limits animani vary directours teaching. To understand directour aniformy deserved a checken as your ont it.

A common error is to relative differently with correleve Ludgrag, materialise https: matacles, when in foot between the strength interfoot manage assignment of the strength machine productry disclosure and manage of the home and even more tropper matales is to positive productry disclosure and manage of the home two strength commands in the strength of the strength and commands in the strength of managed of the interference of the home disclosure of the interference of the strength disclosure of the interference of the thermal disclosure of the interference of the thermal disclosure of the interference of the thermal biobio-constitute interference.

But the most consistent enters to give the gard barrologies and telegosium work/vill, massive limbs to support their weight. Artrise da was bocause they think weight. Artrise da was bocause they think weight and relate as good works but in fact they are not good to the most work renow and most practilitation is observed renow and most practilitation is observed renow and most loss powerful than that of a home. The denovation area in bardery mosted at all.

With seasons and muscle methodian in mark time to low in a wakeho to particing contrast tarts the end a wakeho to particing contrast acts to end possible to the determined possible tarts to end possible to the determined opposite models for a statch to the determined opposite models for a statch to the determined opposite tarts to end to the determined determined in the state of the determined determined in the state of the determined determined and the determined opposite registration of model to the determined and the state of the determined opposite registration of models and the determined and the state of the determined opposite and the determined opposite the determined opposite the determined and the determined opposite the determined opposite the determined and the determined opposite the determined opposite the determined and the determined opposite the determined opposite the determined opposite and the determined opposite the determined op

Part the background ten leaving the decadate service optimises to be parted in last thes is a simple bockgroup bark but likes to their decade on the decade is shit. But likes to their decade on the decade is shit obtained the service and a service and does at the last marks does decade at the doesn't metter each what doesn't hey are to part ing theready the parts on most liaks in their lower doesn't doesn't part ing theready the parts on most liaks in their lower which cade the backase whe

One of registrics is to entron the Welkford of every drogwest that has reaccased by complete remains—that is a reaccased by comling of the relation of the second 100 percent all of here. It have goes lead of directions who have the barm of the central with the late Size is published because of directions. That have the percent of the central with the late Size of the central with the second size of the central moves the second size of the central size of the central moves the second size of the central size of the central size of a lated size of the central si

Gregory Paul: a Johns Hopkons paleontolognil is complement one of the latent actuals in his held.



CONTINUES FROM INSE 45

the insectionie that had been used to eradicate the peet. It worked. The malafrior molecules were blasted to smithereens.

No one appendity Assiss mainfalled the bits developed to many compared to the developed to the many compared. Elewards under a the second second second second to the second second second second second the second second second second to the second second second second to the second second second second to the second to th

In the second distribution of the second distribution of the property distribution is failed and the control the and hen exposed to very only well well for prevent the second distribution of the prevent the second distribution of the prevent the second distribution of the end of the second distribution of a second distribution of a second distribution of a second distribution of the answer the second distribution of the second distribu

NEW PRODUCTS

For these who would table rolling advance is supporterned house have been designed an information replanaryou can would be used to a support of the programming and the transfer of the support of the programming and where the subpart of the programming and where the program the weath risk or a problesize helpsond wystem. The weath risk or 2000-transfer the two would would be the methy to be a support of the support of the problem to the programming and the problem to the the two money (Modelle tem bedown maken to \$200).

approve existin all bing throthere is bing line all an another through which are the bolt with resolution and the second part and the second secon

Panasonic presents a 11/2" color TV. And three other minor miracles.

You're looking at four small TVs with some very big extras. Extras that pop up. Wake you up. Fill you up with fantastic stareo sound, and keep you up with the latest personal TV technology.

Nobody is bigger in small TVs than Panasonic. Take this really portable, portable color TV. Featuring a gem of a color picture. Measuring a mere 1%." All screen sizes measured diagonally.

The three portables play on house current or batteries. Each one comes with a battery that can be recharged hundreds of times. Which can add up to some viry large swings.

The minor miracles from Panasonic. They do a lot more than just stay home and play TV. Dratem second



2.101 Partante, Its' const 12 Marga polium property in Nation/wiles inputs for VCR. Plays on house carrier scalable attention. Recharge 204 and on bottoms.

The DUCP Portable 10: DVM IV Page Address from her adgresses. Some for the for minimum pla

WE-AMP of KrW IV with a built in AMETM bigson used Note to TV redic or neuron. Sim strains, Perfect for night lither country, workbendt, Drangwhere — u can plag it in

In other for tests, 57 FV that pope out of an AM/FM radiu team for better muldour mewing. Plays on house current trageable betteries. And car bettery with consolal order The opening of a new, high frontier will challenge the best that is in us. The new lands witting to be built in space will give us new freedom to search for better governments, social systems, and ways of life so that by our efforts during the decades absed aur children may thereby find a wordf richer in opportunity.

> Dr. Genard K. O'Neill Dealers, Stees Studies Institute

FOR INFORMATION WRITE FO. SOX 52-HINGSTON, NJ 0040



ARMITAGE'S ANATOMY



In Neurostice's pictorial, Furnik Armisopi, Bin all an And devices the operant effects of the firm fractate (Vysige, takina coin a porting) within a bine of the back of drives, convolution operant ways, da webble nervers, unclosus oppring ways, da webble, nervers, unclosus oppring ways, and a webble, nervers, unclosus oppring ways, and webble, on the second second and the second second second second and the second second second second second Armisign netociatury inclusion his vities of the opposite of the second second second second address of these distributions with of the most address of these distributions and the the address of these distributions and the address of these distributions and the address of the second second second second address of the second second second second second address of the second second second second second address of the second second second second address of the second second second second second address of the second second second second second address of the second second second second second second address of the second second second second second second address of the second second second second second second address of the second second second second second second address of the second second second second second second address of the second second second second second second address of the second second second second second second address of the second second second second second address of the second second second second second second address of the second second second second second second address of the second second second second second second address of the second second second second second second address of the second second second second second second address of the second second second second second second second address of the second address of t

SOFT SOFTWARE



Can we transfer our Trivingeneo, our preprint, our very avoid, onlist, and a slippy data, generaling programs that their and noiscond risch as we do consideres? The answar is yes, moscintly to a reresponse atom of "knowledge implication" whose programs among the transition procession of monets and respects parameters to a soft individual very To loan about tudy programs an VYY while dargeneos consent and SKIMPY fortest have on different parametalistics. Const the methods borns

FATHER OF DUNE



A source is associately associated by the set of the source of the theorem of the theoremove of the theorem of the theoremove of the theoremove of the theo

FICTION



Issue Assnor, Marta Risatdi, Nermes Germäl hanny Malaberg, an Asten, and Richott Shree berg ai atro on the theme of politics for an Motember factor orderingenting. For 60x-FI There issue argos forn examinations of includingly of the solid state of the solid state of the solid states of the solid states. The filters denotes states for state-states of including you in the solid states and and an of the solid states. In an advance of including you in the able about the interaction of including you in the solid states. A conclusion control moused point states for a solid states of a states and an able optimizes of Antonica's control moused point.



PHENOMENA

Web is device that, some web, and alless contrains the servery cost of the just of the server is the server server is the server server is a server that the server is the server of the server is the server of the server is the server is the server is the server is the server result of the server is the server of the server is the server is the server of the server is the server The game of Life



By Scot Morris

She kooked at tern suspiciously "foumean this has been done behave?"

"This is a once pepular partie invented by a mathematical John Conway back in tailo He called it tale "I have often whiled away duit hours working cut stypical confoundants."

//isvs01see7.y0

He passed har hand "In my head, my

OX Pers Antiony

Anthony's science dotion novel is set in the astart future task in chapter nine is developer wave a garter called Life (by panedarca, in chapter 11 key set/dote on analong apper field, the headforegon, as were of imports the elasticity writes be 14ppby / car because on headform cores interior in page (6.5).

Biometising of a service revised in 1924 httpspring in set Luk was involved at 20 popularway backets the addent of the home comparison was computed haddent of in this game was computed haddent of access to importante computer with fault access to importante computer in fight prior acress on the accession of the prior acress on the accession of the fight acress on the accession of the maximum computer of the computer maximum computer of the computer to accession of the accession of the maximum computer of the computer to accession of the accession of the maximum computer of the computer to accession of the accession of the maximum computer of the computer to accession of the accession of the maximum computer of the computer to accession of the a

Because the game of Life practice the home correspondent many people who consider themselves expects on the subject of screpular games have needed head of it or two have only a wappa neodection of Life as that game the hackets used to play ket at not?

Next invest: William Norw and Company will provide William Recordshares The next beam of the State State State The next beam of the State State State State and the state State State State State State Annual of the state State State State State Annual of the state Anders of Line Inglism Annual State State State State State State State State State State State Annual State State State State State State State State State Annual State State State State State State State State State Annual State State State State State State State State State Annual State Annual State Sta



Put that dots in 7 shape (top left) follow the three rules, and see whet furgers

THREE LITTLE PARLES

Los on da garen en tim sual asindo, bui a mathematica a loshere playos con a miniasse, souse obsolventoprative con a miniasse, souse obsolventoprative con a monicase on an original position of a loss tasseson an original position in the install positions of a loss double are see tour, bing garent plays doed. The samplement of on cells at one means lossing commons the anargement of the notal moment, and that is furn.

What is senarable about Life's that hav what auditions correlently oil following from just these sample uses what optimizes what and these sample uses what optimizes and the sample use of some of white protebas at the adjoes and some make the mathematical by deprivations and the adjoes and some make the mathematical some sample and these rules to determine what is the local these rules to determine what is the local the one or white the red optimizers

1 2 - same it is call has asactly two on neighbors, it maintains its status quo tho the next generation. If the cell is on 11 stays on 711 and 4 stars of

2: 3 = 36 If the number of on neighbors is exactly three, the cell is us in the next generation. If the cell was already on, it "surveys," if it was not if in our raws is tarth."

3 Other = death. If there are any other number of on neighbors, the cell dies in the next generation. With zero or one on neighbors, the cell dies of " solator". with four two six seven, or eight on neighbors it dies of 'overpopulation

That's it. There are no other rules. Low was invertised by University of Carriendge anti-emploarn. John Herton Convey, and he setted on these lines rules because they produced a maximum arround of unproductionity and surprise from one compression to the relat.

To track the perinalizer's by here's you can use graph paper as relevant here, of its large checkerboard array, like a go of Perro board. Welth either method, it is very easy to make motakers to it is important to double check each square botte processing on the notific precision.

In a single is show that way wandlopping of drive provide the start wandlopping of the spectrum of the start wandlopping of the spectrum of the spectrum of the spectrum of page. The spectrum of the spectrum of page is the spectrum of the spectrum of page. The spectrum of the spectrum of the spectrum of the spectrum of spec

This is the simplest of an infinite family of oscillators that winch back and forth between one state and another

Other shapes sity the same Consider three subject to cable analoge to these consists of a focus-oel space. Each long of rearing on in the read generation R by rule 1), and the fourth only the read strateging is table, and each only the R and R the is table, and each of the R. Charles block of the read is the read of the R and the strateging is table, and which the read of the read is travely, unlease of the R and Charles the each of the read is table to the read of the read which is the R and S and the R and the

bonng on cells not in a square the risulang patients become more intensiting.

15 CMM
expositively the one called the T istruments without the transitional work of the transition amange with determing 1 from the protect amange with determing 1 from the protect and amanged and the a T shape on a protect and the transition of the protect transition with the 0, the patient respects to the transition respectively and the patient transition respectively and the patient transition transitions at them and the patients to considtive the rest to a patient or actively that back and fact the a patient called that back and fact the patient called the back and fact the patient fact the patient the back and fact the patient the back and

The r-pentomino continues to come up with new Life forms and utemasky life.

	1000	
	1	
. peec	7581	178622

Louise .	-

The bilister coordides forever, the r portonismo rapid dec. and the pictor funs many Any Your resolution computer review water strated of lighting. In those of the winds address of the last a strate provided the global strategies and the strategies of the comparison of the strategies of the windshift in well being provided to the interview the resolution of the light in a cow being resolution of the light in a cow being resolution of the light in a cow being resolution of the interview of the resolution of the microbiol well threads is and here the common of the resolution of the light in a cow being resolution of the light in the interview well and the light is and the interview of the resolution of the light is a comparison of the light is and the provided of the light is and the light is a comparison of the light is and the provided is a comparison of the light is a comparison of the light is and the light is a comparison of the light is a comparison

Denotow all these blocks barvers galetes and other obsets in this birth in the organia operations and the traver arrays inclusible who could have forecases if it is in presentery this high degree of unpredictable, if within Atschip to observice to bursts, that led Convey to action on the take of content roles. The named the game Lide blockase it severes to model the way both arrays beginning and a two rules of manual selection.

UFE GOES OF

When Colonial emposition of the games are general thread simple patients are offdations executely and high games that general thread simple patients exolution and the second simple patient of the simple exode on tables with the date patients when the simple patient of the simple patient exode on tables with the date patients of the simple patient of the simple the soften mark levels that the appendix of the simple patient of the simple the operative the simple patients in the date of the simple patients of the simple exode on the simple patients of the simple of the simple patients of the simple the operative the the simple patients of the simple treat the type and beyone and the bind recent the simple patients of the simple recent the simple patients of the simple the operative the simple patients of the simple recent the simple patients of the simple simple patients of the simple patients of the simple simple

In real bological populations, it is possible for even the rate of growth to grow in the game of Life, there is is pattern called the treeder, which mimics the phenomenon and explands at an even increasing one The most starting now developments as conversigned the existence of paissees had resolution disparsame do in the second source of her rooted book lowing second source of her rooted book lowing with flaver throwing, and/or cost don't with flaver throwing, and/or cost don't with flaver throwing, and/or cost don't don't be throwing throwing and the cost resolution. It is produced, and the throwing throwing throwing and the throwing the second resolution that don't a long throw definement and that don't a long throw definement and that don't a long throw definement and the second the second

Installation as it may assent, this sample game can give brin to set reproducing "organisme" that cataly every demons of the They would be threatly also. Poundtione writes, by write of encoding and resexputeting information about there own maksup. The implicit cell reproducing Like patterns would be also in a censo that a visual as not

Life alrows how the future can be pertipleley determinance yet weeky unpreclassible. And it is "horward determinate" Each state may here many possible paste bit only one future. The games neares philosophisal questions about the nature of the invertige any future interest we can know

We can get any a setting variability indications but the third solution is a form ranked cardiomic Needs. Let it and the third solution cardiomic Needs. Let it and the third solution property of the third solution is a solution property of the third solution is a solution of the third solution is a solution of the third solution is a solution of the third solution of the solution of the third solution of the solution of the third solution of the solution of



LAST

By John McCarthy

A young doctor elspoyers that he bas the power to cure anyose under the ago of sevency. What will hispoon of he pasts his gift? orbust to you consistent as a recent and a your of highware minisch has consisted a your of house where women an about a closeness that he has the power to curb anyone highware. Any context insertion blot all bloss the advance

He has alsolve been deviated to his work and wave in to use his gift to benefit inches to us much as possible. He increase havevel that the gift is ricetometerable, set last for the figure only, and will not perset if a fourth. This means a two calaboration

What will happen it he raids his gift? What should he by to do, and how should he do about don't (1³

what is the most leverable ripult that rear termorealbid?

Toosa ladar registri a mijintar of the abletition rative transition language outputs and miji data of the potract assessments in these guarance asteoris this destret is generating obspaces. In sets, in unlike to insplete the modes, give sense personnande scenarios to through these through these inspletes and the personnande to through these inspletes and the inspletes and ins

1. Concert the clubble scale like (2011) the merit clobest factor products and clubble transition of the language of the clubble scale of the merit like of the language of the scale scale of the scale scale scale of the scale scale of the scale factor is clubble scale scale scale scale scale of the scale scale scale scale scale scale scale scale scales (100 merit) and the scale scale

by the church of your choice Tometics are encount by possibler ind our need to baryoni at the steen

3. His gift is subged hely by a cellular man gaze accord of here. But he was subsorded by somethical that here y subsorded by somethical that here y

4. He forms an erganulation for config. people the acrise way have building and plan lays a concepted by desimilar to concept power tame, and ways and routine more and means lasting and collection terms for function of the strategies and countre parts and means lasting and collection terms for function of the strategies and countre page develops more taken committee the opportunities that additional of the stated of the stategies and of the stated of the stategies and of the stated of the stategies and of the stategies and the stategi

 Hars taken by the U.S. government wholk either

All bogst hinks a cust aready of ID willing million that cust are benefitied in the set of the set

group to a spage where he should have entry into address for the bard have

 c) Gets into a clapute with the Hospitalia who want the clocky to cure their leaders too. This leads to a nuclear war.

6 The scentrals reaction studying he get to the exclusion of letting time users. Ever more dangerous respertments are tred unit the isolation.

7 The clocks is been user by technologies whicking here, contrasties, and role his life whigh eacoutive demants more productively and measures in replace the besichably in dimension.

3 He brings about universal leader, in the persuation cosholikes

9 Using the set of the set of

I before all of the above costraincedee can be plotted and the call made riflo a groat benefit. The staution receives manety, conversion series, and self-bology

Estanty the generalized into table of resonance to another barrens well been resonance to another barrens well been resonance and the second second second second to get the insertion barrens in the insertions. The resonance is the second second second second second in the works where these second second second is get the insertion of the second second second is get the insertion of the second second second is the insertions. The doctor case is not insertions. The second second second second is the insertion of the second second second second is the insertion of the second second second second is the insertion of the second second second is the insertion of the second second is the second second second second is the second

Serve people block of interve setuped explane booxee (a rineway a large fractive with mayong been hist works protochly be may other people might hists. All a law of nature is provy holy violated interve it ages the says of a generally approximate is may be interviewed to and in an integration to the appeared local could fract the best here don't be interviewed to a country of the territory of the interviewed to a country of the territory of the interviewed to a country of the territory of the interviewed to a country of the territory of the interviewed to a country of the interviewed the interviewed to a country of the interviewed the interviewed to a country of the interviewed the interviewed the interviewed to a country of the interviewed the interviewed the interviewed to a country of the interviewed the interviewe

If wasks out be very of this all for the states that all the decides shadows, preven a reservable objects of previous/versel patients on the provider on this pacet of the onpatients on the provider and the previous of the patients of the previous of the decided of the patients of the previous of the decided of the previous of the decided of the previous of the previous of the decided of the previous of the annexes the previous the decided of the decided the other stranges that even they need the other SOD

John McCarby a Jos Une clor of Stantard Deservative Artificial Depression Laboratory