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FIRST WORD

By Marvin Micsky

 The public wants to hear the latest thing but has no conception of what science is and how it got that way? Along was from time there transformation support of the State and Lucrate Jones much the state of the the state of the sta

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ACCHELM.

Service and a strength of the service of the servic

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In the models interveive on page 54 model Ros School and Geh March (sitialian an into the despect training of cosmologue taking and the despect training of cosmologue adjusted to unity four dispatient losses adjusted to unity four dispatient losses when the universe were tarread. Suppopulation when the universe were tarread. Suppopulation adjusted to unity four dispatient losses that the universe were tarread. Suppopulation adjusted to the search for symmetry among the croses. The provide a possibility adjusted to the search for symmetry among the croses. The possibility adjusted and were there from a granitosis disease at the type adjusted and the search of symmetry among adjusted and the search of symmetry among adjusted and the type of the search of the search of adjusted and the search of the search of the despection with the despectio

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While experimental physicsts like Get-Mann peer into the substrume work! Cenvir macris have been stealing a gimps of the future Last October in our safe antivienary insu on Love, Work, and Pray in the Twenty first Contury, we asked readers to participate in a Delphic polidearout to contact their reases in the work. b com hol tog allow we certwiser Ower Javes to fire opent, there a a position to know what regit is assensibly occur. Daves the regit is assensibly occur. Daves the regit is assensibly assention of the second second second long or at a gamma social second second assign to base open the Vert is to a sample to base of the Vert is to a second to a second the Vert is and a second to a second the Vert is and a second to a second the Vert is and a second to a second the Vert is and a the top open the Vert is and and the second to a second to the Vert is and the the second to a second to the Vert is and the the term of the the second to the term of the the second to the vert is and the the term of the the second to the the term of term of the term of the term of the term of ter

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In Diversity University on page B2, Mark Harriss registration the announcement of the model control, wurdly describing decadence bitming if and twee simitraging appreciationally engineered species And Heason Baven (togot 46) by Barry M. Mattersong et al. chilling statry Jabout a million analytic bahvesin over and outry man Orwellian type university. Matterg is a well-known science lector critic DD

COMMUNIC/ATIONS

arraises mel You have the perfect blend of scarsos art hoson and hurror When the

which are beganation. The November 1984 result apoll ghtted Doug Webb a rought of

Hardy Besconse

Sanuary 19851 Lfind your ndicule intercuente

presure datases, and psychological deves could mean full-iment.

Nuclear Foundon

ing magazine. As usual, while reading however distarted by Eno Mishara's article Jensey 1965) How my religent individual of werheads that could undoubtedly the earth may seem too farmatic to believe

The resulting singles ash and dust also

We at the Minnesota Bociety for Space Engler (Continuum, February 2985) We crunched the following flavors, cherry, Peppoment and Wintogrean Peopoment

powerful energy source hidden in each I believe that we now have in our cockate

Managoolis MN

In his article Tislamo Prayer Computer [Continuum Jacuary 19/5] George Noble Araba the Igure is closer to 800 million

Where Credit is Due

The picture of a computer screen impelled Intelligence column for November 1984 was togal loc. of Fort Lee, New Jerrary DO

FORUM

One welcome operachies, thereas, commensary executions from waters in the open forum. We insele you to see the open forum. We insele you to see the open for the forum of the open for the forum of the open for the forum of the open for the open for the forum of the open forum of the open forum of the open forum of the open research through a set of the open forum of the open research through these of the open forum of the open research through the open of the open will there of the integration.

Look---Up in the Sky

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Stame on you for primp the experision of where such as a disclog against such the UFO controversy is certrific respirate control with the separate control with the separate control with the separate of the most loss does not write the general lasse of official UFO secrety the cooperities lassed and include and generative the secret and a secret the secret lasses coopering the secret lasses respirate the temporaries the secret lasses of the secret and a secret the secret lasses and the

Lany Bryant Director Washington DC, office Ottoms Against UFO Secrety Assanding VA

The interview with J. Allen Hynek was a breach of fresh ar from one of the world's loternost experts on UFOs. Hynek serves to visciliate, however in his opmon regarding UFDs existence and capabilities

Case to port: While decoarding the classes source on Start and Sarroy Hd. Ne classes that is a physical modostifut and the same is the method on physical modostifut the data and ministration of physical class. Teach the data and ministration of physical class the composed that an adversarial order the composed that an adversarial outcome the physical classes that an adversarial outcome from that care produce a three dimensional from that care produce a three dimensional from the tare produce a three dimensional from the tare produce a three dimensional from the tare produce a three dimensional class Based and Class Based and the same trans-

In an essay on language published in 1946 George Orwell off ned the word phasomenon is one of those patientibus words Used to drive a primple statements and give an air of scientific imparticity to based underants.

This explains why the bloated expression UFO phenomenon is ap pocular with flyingteacer advocates like J Alien Hynek Such an expression eventhadows the simple



fact there are out of ten UEO reports involve matabases of assess and that the first matabases of assess and that the first concept the quality of beng. "Involved" So what? Nexry toberess and matateria also what? Nexry toberess and matateria also would ascribe all such ormes to a singlemation uncolveralise of the singlemation uncolveralised of the singlemation uncolveralised of the singlenot aspect of a larger "phenomenon" David Schroth

Hyrek and a host of others are under the impression that given our current linct hology, it is unitially if not impossible, to insverse the vigit distances between the stars.

If a supercivilization does shift our unahalisable foundation of physics might seem archae to its members. Our undertransing of physics could be completely created but honelessly incorpolate.

What does it ported that these alers have not contacted governments on Earlie's lopibably means they're not interested What makes us therk that television, likeirs and nuclear weapons male us number one on the contact his parate?

> Shawn Bobbett Martinez, CA

I must remark on J. Alien Hynek's statements about my hypothesis that UFO abductees age reliving their bath lowers

Hynek has been repeating himself for resirily a decide and without some new bit of scentific infusion, his newfound phoetix will remain wathbaund.

> Alvin Lawson Garden Grove: CADO

10 OMH

SEX AND MORALITY

By Carol Johmann

o you dwnk a man should steal an Take a moment to ponder the problem How you respond saws Harvard psycholog

Like other researchers interested in subjects to speak freely about the moral conflicts in their own iwas. But unlike other

What Gillican found is that women differ

people involved The woman's approach outgrowth of her nutruining cabecity According to Gillicen If is important for a

drug. Using a mathlike process, the boys contrast cirils tended to see the dilemma in the man would be caught and how that

In the past, the girls approach would a well developed and mature moral under between the serves.

Giboin mikes me wander about says Dr Julia Wood associate professor



of North Carolina, at Chapel Hit, "Often rence of a couple who has just decided has been made it is final. There is no need Wood, is socied in the woman's series of connections and her need to deal with

such differences between men and women length from every angle. Men seem out by kinds of conversations. Wood concludes The men cet frustrided and feet up, while the

these feelings is exclusively genetically prewired and sexually determined, says Wood "More fively it is a marter of socialzation" If so then a keen eventness of

One snea sitesidy changing as more and more women enter management positions a the American opposition. The Glazari decision making into the business world into everyday contacts. Studies have shown

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puzzles. You see each



situation unfolding in your mind's eye. You choose what to do about it. What happens next happens because of what you decided to do.

You're an your way to more challenge thum most peopie ever face. That's not its our opino-. It's the testimoty of our custors ers. They tell us their pulse rathes skyrotoket and their palms sweat as they strive to kodw our puzzles. And even when they puzzles. And even when they puzzles, their minds continue to charn away at which the next story solution lies.



INFRACTIVE FICTION SOFTWARE INTERACTIVE FICTION SOFTWARE Information of periodic comparisons where watery of periodic comparisons



THE ARTS

By Charles Platt

In tyrup to vession a world of the future apparent as associated future world and apparent the arry age problem. Its possible to brease future schoology that costs if you are school and the spatial approximation of the spatial school and the future large age to be even as a school and the future large age to be even as the Too life future large age of the spatial school and the future large age of the spatial school and the school and the school and the spatial school and the school and the school and the spatial school and the school and the spatial school and the school and the spatial school and the school and the school and the school and the spatial school and the school and th

Mose whose avoid the problem by ignoring it. They complet metrolicularly obtained future excisis—stuil of the transation inhobed by popular billing files everyday, teerheth carriury Amarcasa. The exterption table, Alamova minerasky aucosofful Foundation serves spans hundreds of containes and futures that futures and the galaxy but avoids intradicing is single work of a but auto direct.

Some science-Indian version makes make a loben gesturic toward ingrader realists try inscring a few wend words here and here—choosing strange names for palace and characters. For example, This doesn't really deal with the tanguage problem but to lead it, owner the writing ain eacher liever that helps to claring with the future world from loops/s

Wery leve aufors develop their own languages, Arthory Burgerss A. Obckwoh Croupe in which leenage gamps possiholdars is goontage ther most homous example Some than wrende taking dusch as homoutane derived than the Pusalar historiate meaning good? even pilled over into tool few when the move version of the bork was infered

To make he have applic comprehensities appears mispersite the siding with everyptic English. The contact implies he manning. Sectorocs like: There were three developing at the counter all begin the barre were barrol and matching allows a reader to pack up Nasteet allows a reader to pack up Nasteet in the same way while a water to Fonces could law? French—mercy by being exposed to the instruction

In Articley Walker Russel Hoben dealt differently with the language problem 22 DMI He inverted vector that isobacit strange but sounded like English who in toxi advact Hoben who has generation of a directed litherine possistemethytic bitharin in the shift of a warroken gradyedies rung such and the sector strange in the sector and the grad log of system back. The staggest begins that to tabas word if you wait thank and the ware English of advact that is warroken as his model. If wall not begins any the ware begins in the sector that are the ware begins in the sector that are with the ware begins in the that is set to be the sector that is begins and the back and the sector back that is begins and the ware begins in the the back model has been to be the englisher back the back model has not be back and the back that is back to be the sector back and the back model has been to back the sector the back se

A science fiction writer faces a similar diferrima. He classifit want to bore the



reader with long lectures explaining his invented future, but at the same time his wonders whether the assumptions will make sense if they are presented as is without commentary.

leasily the white concode actives that description provides which will be approximately a set of the set of the C. M. Komhelm was an expert at this has a set of the set of the set of the set about the set of the set of the set built of the set of the set of the set built of the set of

After Dawn, the Kombult, the time mode here possible in the density (Host with their stores that density directly have avoid a tria and the density of the density of the density of the analysis of the density of the density of the triangle of the density of the density of the triangle of the density of the density of the triangle of the density of the density of the poster with the density of the density of the triangle of the density of the large density of the dens

William Obspr. whose short attainat how operand hogowychin Ohmin Jaab ben called the Beater of the Eightee. Obsor used hogomato Juaia taki to add aubertority to his glowaftbooking hit moet. Neuroscience The book depath the Bet Coel of America as is alwing uber moet. Neuroscience The book depath the Bet Coel of America and the add to the book and the provide the short of the short of the short of the indication coeles ben't direct and insightery consume-poch binin names. New thataki. Why an

But perhaps the most interesting aspect contractor may be

BREAK DANCING IN THE PLEIADES

STARS

By Steve Nadis and Neal Burnham

In their most self-confident moments scientist propose taws that specify how all objects—from the treat neutrino to the targest gatew—ought to conclust thirmanes. They have tool us for example how the overage sair should perform

It came as guite a shock, then when addictores tecony decovered that a group of stars in the closer Pleader to the right of Don't belt, is aprinning mad yea an intergelect variasion of threak demonstration and the start they have a start or solution.

What was bund was a group of its out calefoldwines start praining much liable than it alreaded models would have be used to be a start of the start of the beneformed to be a start of the start would be a start of the start of the Nees During the start of the start of the Nees During the start of the start of the Nees During the start of the start of the Nees During the start of the start of the Nees During the start of the start of the Nees During the start of the start of the Nees During the start of the start of the Nees During the start of the start of the Nees During the start of the start of the need the start of the start of the start of the Nees Start of the start of the start of the start of the Nees Start of the st might be fast rotators and the variations in loft came from dark soots on them

But the most remainable thing about Van Laeuwen and Alphomars sobservations was not his think was the weaking but the the attern were relating to quickly making mole than one workaizen per day in toot. The fastiset of the Pleadees strats, they sead agent around once every so so hours. By comparison, the sun taken 25 days to complete one routation.

Harvards John Staufer was ready deptical local time Indiang. He had been subject in November 1998 and the been subject in November 1998 and the local subject in November 1998 and the local subject in November 1998 and the local subject in November 1998 and the sub

lack in Carriotolge. Stautier joined torge



The Physicles star cluster some intergalactic compatition for times dencers and figure shapes pi OMN

with the colleagues and came up with a benry gate offender them that of a European estimation with the them and European estimations are a group of start that in the Readers was a group of start that in the Readers was a group of start that of gate and dust. The start wave external and minimatic start in the start wave entering and minimatic start of start start is and minimatic start of start starts. The share Regering the main socializes the share instarts Alson than 50 percent of all the lineters Alson than 50 percent of all the stars. we fund the main soggested.

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Because high-mass stars get to the main expense first they should be the ones to slow down limit. The contextures That has been the case in the Piliciake The heaser G area (as high mass stars are classified) observed in the cluster failer only 30 million years to hinsh their contractores and the lighter K stars take 70 million years

In the basis as investigated and could rotate report and later slow down had been suggested by others, but it was only a theory. Until Stauffer and his coleagues made their observations, no direct evidence had been bund

One of the great somes of all of this, Saturflar points out is that the evidence for this rotation has been available on photographic plates taken 15 to 20 years ago " It was there for descrivery if second had been looking for it," the says DD



CONTINUUM

MOON BANKING

colom. You've sport a long, hard day in the lunar merc driefle, degrang out over to be sent down to Elishih, and new your colors to make a first borner at the salace your out of cosh and these things cost pirmty with them in called level and the sent the salace and the salace and the level as what do you day Way you go to the taken of classes. Sent the lunar branch classes and sans. To be read

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To serve their moonside outpress. Lanat will set up a bitrarch of one in the land ordery that /MARA plans to extenditati---between 2008 and 2000---at Cayley Coster, rear the sate of the Apalia to fair-drog Afflet/Delarity will be statisfication of the Apalia to failer with additional employees to be hind are presented. Site has the applicates for MARA surround lists. Lamix chooses are optimized in the failed areasones in their assisting the moon durout no excitence in the failed areasones for moon dur-

There are a few obtaines of ocurse in Texas plans to any new backing official must be approved by the attain severas and concorrentiationes and Lamarinas field the required "application for barroh officier forms. The completed document is summal with such entries are Community to be entried by this binarch office contains approximately this million square miles. Tand Popula to of the community at the time of the last comparises. We all

Despite these otherworkdy tacts and figures tanks skinings and loan commissioner Linton Bowman has managed to keep his live on the crouxed. We doot i consider this to be acutoticith start." he says. I think they reservous, and if will be treated its a servicus application. Write assist the attorney perient to random an open on and write probably going to have hearings onit. I don't want to preside it now be saved I will or whom a popover if '

In on ther application through the legal guardist, lamai soutains have strained the Houssion poor-lew firm of Daius. Shelds 5 Egbent: Lawyer Am Dia approaches the bask with a measure fair or threat way table and a pooring that we will have coloring that poor and the strain guarding that we will have coloring during the strain guarding that we will have coloring during the strain guarding that any source strain the mere encough to say "No. 3 have saw rgs encloses therein should be established on the same' in don't have.

For bais, Lener Loare is more then just another legal tried 35 part of man's firs steps of the parter. Those not going to get human migration into space on any large scale without accrretions gaining out here that We want to issue the businesses that will take a place that is barren worthless and empty and transform it in divantant. Dates

If the state of linear decide that is should be first on the moon, then it may one day be raining in tax claims from the heavers. The corporations that do business on the funer surface or in nearby spaces are going to be barring; at dealer of Day by Catel and not at barring yolds like New flot. Prans And you can be this the first mount likeness with going to set away the money in all settice a clace as a Barris barr.

Durming the bank is isolving for beforeks profile of some availability of the source branch start way will object with a profile of the back and the source source of the source profile of the back and processing the source of the back profile of the back and processing the source and profile of the back and processing the source and a polycopheric back and the source and a polycopheric back and the source where no mean the and oppond an account with the the back and back in the source of where a polycopheric and the source back and the source where it the source back and the source of the source of the source back and the source of the sou

CONTINUUM



Astronaus and others living in space will need special medical realized (ASSA is working on antennon care in the medical

TRAUMA IN ORBIT

An excidential exclosion on board the abace station (SM critically injents an as thread, Timy repressing cauchy placed against this injured astronaut's dein precessly monitor his condition so that a min-mitical computer con tracidy make a diagnosis and prescribe the treatment has severe the saturance as the

Hills integrativy solution is likely to activatly happen in the 1960s with the activet of manned NASA space stations and the movement of growing numbers of people into space in fact, NASA has begun to cause the technology for mackaal trassment, and even surgery, in page 200 primers

The opace alapons will be accessible only by space shufter, surgeon and NASA consultant Dr. John Sagel lays, and it leters burtten by a shufte for flight. So without the opacibility to care for the opacibility to care for the opacibility to care for while they're in space the skys 'youre condemning these people to death

Dr. Segol & clinical director of the skock and hourse ontine 20the University of Maryland in Baltimour That control the been executed a NGA contract to develop a hinder and sanctors into these year developed which will an ubits the actimad-phycocans of climitses to cope with a warp sometry or medical problems

N454 Dr Sregel says is also backing the zero gravyly surgery techniques (br instance the patient ingold bio operated in through a pletito barnet to keep his blood from fronting exec) as well as the development of a special purch, drive in zero gravity (in-Enc. Mahasa

Anybody, altrost, can make a beginning. The difficulty is to make an end—to do what connot be bettered

- George Bernard Shaw

MADNESS

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As a group poets suffere the most severe forms of disturbance. Almost 20 percent of the 18 poets studied suffered at least one manage depresents required settings records to have required transference required transference in and more than that and they take in more populationary or falsen mode along their hypomode applications of the fermice applications of the fermice applications of the fermice applications of the mode disactions. The features where quality unability for the particles more participation in the sources.

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"The peak of my talent I lited straight at my over heart" —Veronica Garig



Van Gogh His mood swings we common to meny actuals

28 DMN



A new gluelike maleriel mede from blood components can help skronord out people back foreither without service autores

PEOPLE GLUE

Surgeons in this country will be giving people back together like large data if tests of a substance bang used in Venns proce out The network derived. There sailart i gains annual tessaes and promotes heating, avoid ing the bleecking, pen and team of nearfies and whome

Declars who have trad the give on artimistic and "himlight" anys Mary Ellen Luczun, the runse in charge of the clinical testing of this munouldi, the manufactures. The fast seatant is spipaled in dropiets or toroyed on the areas to be jorned and forms a white rubbery mass that holds the law citize threather.

The glue contiants fibrinoger, the substance in hantes blood thei causes cisting and it works by annulating a normal citot Because it sets taster and forms a stronger athesive, however, it more effectively controls hearting. The winter inter reary a social doc with the red cads missing eventually dissolves and is absorbed by the body just like an orthogo clint

This group to be a gired thing "Locan regist" As a marks, the seen surgeons table in the operating to table in the operating to table to table the table of table table table of table tables the table of table tables the table of tables tables tables to tables tables tables to tables table

One eye surgoon here who has tred the give on animatic greatify unreased. D lackson Coleman, of Comat Medical Certex, is "very anches by its polaribal to seal large holes in the retina." The give, he expects, will ris such holes "like a rubbar give na automobile tre

-Arthony Lowerschipe C

DRILL SERGEANTS

Marrie basic training, exervative knows, is tough or reacts: What most people don't appreciate is that it a pure half for the chill instructors

There about it A cont acquest socks regular scheduled 11 week shifts and the sock shifts and the sock of sleep a regit week sock of sleep a regit regit mer beside of Socks and week socks and regiterer years and paylence (more Stor 36 sockenters in the slat we are socked by a regit of sock and the slat and the slater we have a sock and the slater by slate instant a frequency beside occurs. Then two seeks after one group a seeks after one group a steeks after one group a

Regrand W Novaco, d Hard Levers of Leafornia at Vivine, and Levin G. Spatishov, construction of Levin G. Spatishov, constructions of Levin Angels, and the structure of L

Pethomanor rules anong ber schults were lowed and attribun rates were highest. The upshot The two propriohologists developed a program to teach manne drill seggents seven key diress toomo wide. The case of the program, new barry proferentiad in drill estituator schools in San Dega and Perrers Island. South Dealehra consists of as vidoolapper deeling with various aspecte of stress in the like of a drill songeant installation, anger, impa sence anools, family profutions, and recruit evaluation Each of these themes is illustrated by a pischole team.

Prustation for example is shown in the contact of physical barring. Among the publicities addressed is the instructor respond to the messal who can't get over the wal?" Calify and wavely the sage suggests it bottler for everyone carrier and everyone carrier

There seems to ne very title ground for general optimisment 1 fear the conlented men 1 fear him, because there is no progress unless there is discontent ' —John P Marguenc

Everything great in the world comes from neurobos —Marcol Prouts



Differences Alte of a conx anony and stress

CONTINUUM



about a statement that may

ort words you speak poor

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find owe the counter product Only sinks may be the target of the

ONA, a maily good diogged

"When accord the en-

-John Ruske





Minors could reake turncane dervace a menace of the cust

REALLY BIG MIRRORS AND THE WEATHER

Don't like the weather? Wint to do scrimething albout it? A Toxas oconomist says raskues atmospheric whitts could be trought firmity and finally under human control by piscing huge mitters in orbit accurst the safeth

What drives the weather parent of the global sapares Daniel Manthi of the University of Delites and the Naconst Carther for Policy Analysis. Ta assembling the light of the same The sam heats there cassful same of all the policy there is may appreciate differences after the basis of the related the

"I space minors were sufficiently large." Marsh says "they could focus enough surgifit on the earth to create artificial weather patterns."

scheme lightweight refeatin penes of aluminum and myler could be launches by assess of Jahroliss and assess of Jahroliss and assess of Jahroliss and assess of Jahroliss and assess available under the say, burn of Sig at mispr apports — strekely small task in Mantha see Lange and Socials a high-persone apports — strekely small task in Mantha see Lange and Socials and pro-persone apports and contained assess and pro-persone transports and social mathematical Assess proteil mechine Access proteil mechine Access proteil mechine Access and pro-persone web web and the beat mechine and thematical persone web and the persone access web and beat mechine and thematical persone access web and beat mechine and thematical persone access web and persone access web and beat mechine and thematical persone access web and persone access web and persone access web and persone access and the access access and th

so fit nemar Mapa nor the Nations Weather Service has expressed much eter est Alfs the pty says Masth bodause the whole thing could be accomplished for a mere 556 billion—about the cost of a first of 8-1 bombors —Bill Lawren

"Next to being right in this world, the best of all things is to be clearly and definitely wrong."

-Thomas Heavy Huxiey

SPACE TASTE

Since the beginning of species travel species foot here been something of a sole point between attravels, and gound control. During the Styliab messers the cases graded continuously about the bisens and Gameria for the level at variety of species and condiments including house regide hard Tubbeco scuce to chach the weakshed the spaces seemed to lose their ang

Longescherzeit is regulant für bernamment. Smill dissent: tavet guckly in the ber annopheric zeresure of a sease statut. Mit ance salt bod seems bland. Also in frie abberten of grava, body funds pool in the head mid chezil für competion prevents actionauts itom smichig and chazing ther fund fried the competion prevents actionauts itom smichig and too in setting the competion and table the dupt to in commit

Recently however the Soviet sonce program has presented new findings on halle ney legade According to Dr. 5. Bananski of the Milary legade According Milary legade for Availant Milary legade for the Milary legade for Availant Milary legad ance of the Inde organ." Baranski and his team dawsinged an electrogustameter to measure the receptivity of aboard Soyur 50 and 31 With this apparatus, the Soviets measured sometimus chametric changes in Trate

Bisanaka Indings / they and up may have a pobund migration free method bund migration free method bund migration of second bund migration and second and boot datase on a new migration bund business and migration bund second and boot automation and migration bundle with an second and boot automation second and boot automation second and and and second automation and and second automation and and second automation second automation second automation second automation migration for weight second migration for weight second migration for weight second migration for second second migration migr



Eating is space. Why does tood table blood in zero p? New Sower bridings point lowerd endocrine and metabolic shifts.

CONTINUUM



Diagonity: Wish two pews of seminipid wings is can by backward adeways: and forward at speeds up to 50 miles per hour

DRAGONFLY SECRETS

Dregonities which have been fitting across the landscape for 250 million summers may provide dues that could lead to a revolution in arcraft design

The dragently by central uses two pains of semingid simple to giminiate total fours of an that are different from the surrounding atmosphere in then uses the miniatuse vortices, created in these undersold flows to the

Dragorfles scoording to

Marun Lutiges performer di acrosposo segneserne sperce, can hover with little allort and it puschesard soloways and forward in speciel un 60 milliones per hour More amportent ther in confluent – tes rates of litt hovergi surface-unis se A hyppeti milli accruit hau a Millio confluent o tes hyppetimiliance planes

Lutges is studying datsolution is studying and validway implie creatures instruction of the studying and compared with brack Furnmingtonias resisted qualities in model, but they also their model, but they also the study of the studying the base configuration of congistee every direct boundary issues in the configuration of studying the studying the provide of the disport in specific to the disport in the studying the stud complex is that we don't understand the overall princ ples used "

Luitgen and fellow nosearchers Donald Kennedy, Peer Fregmuth, and C. Y. Chan hope to divelop new wrg designs for high-perbimance million section. and safety devices for hoperoad animos. They are applied animos. They are applied in the use of robotic ascent might fur vecidi haspord network to sudden ar guids over one wing a statistica hat come cause a pame to over one wing a statistica.

The hall with criticism. Praise s-good enough for me

KIDDIE CLONE KIT

Lany Sitt a grad student inter percents how what their percents how what to give his kets for Ofnethes "rearted if to be obtaine tonal and I wanted it to give them higher volues an unge to do something about human problems, his ways his collection, do a several

gene spicing Slot's Dr Donars Genatic Engineering Home Opring Kit has all you need to grow bacters and to transfer & gane from one species to another

Its is simple a child can do it thus this growing out/used they backens bound an the mouth Strepton bound an the mouth Strepton Displacement with Mitabi have time use for the sugar Register the Statisstics of the with lyaceme here break with gaceme here break and build before and perces with gas electrophoneies the statistic before and the statistic before the statistics of the statist Finally use calcium chloride (road saif) to insert the right preceinto 5 mits Suddenly 5 mits all success

If s not much of in accomplatment unless you like bild brash--gail the enginoered bags in your mouth and you'l be able to kell cockteadenes without a spray--but Sict hopes that bigger things will evertually come of it.

extense conego I wak a bash piot in Hondwas, his away 1 sawa a ki di human mesoy bere and in Alinoa as well. Biotechnology is our only hope of dieling with stavelon piotic mesource depletion and many other problems fault acous in had problems fault acous in had comenting about theil

But most belogges are after more contain petitis Companyes just anen't interented in goting and or poliution. This where children come in They re-skellake and creative II we provide the lachnology to do something about these problems, they't find answers."

In the long run, Bick toppes to see a generation of said singing gene handlers change harvorid pail as computer handlers have drive if the handlers have drive if the said the possible for some demention person is make a demention person d

Nother does he expect

2 044



The charveshy bit is plaged, foday 5 high-burried, tag scent de able to boy Dr. Cloner's Ganetic Engineering Home Goring Rt.

trouble from the Environment to Protection Administration, charged with regulating genetic experiments. These backes a suchange frem ponse all the time in instance he says, so this pathoular experiment is exempt from explained.

Stot has since left MET to market some research soupment he designed and of course, his handy horseclonin lot.

Alasi the let was not available for Christmas. Slot is still working to bring the price down to its infanded retail cost of \$100 --- Owen Davies

"Lou Gehing came down with Lou Gehing's disease. What are the odds of thet happening?"

---Dan Rat

"The avaidance of taxes is the only intellectual pursuit that still cames any reward " whice Mauroral Mauroral

LASER BURN-OFF

An difference will will in the freen Actic blacks out, pumping millions of gallons of those could all up to the outrace of the hing diverter and opening on Floes for miles grown. The others for miles grown. The other size this, and become an environmental catastroche. Innsterning webliast and other size this, an webliast the regions abundent copulation of new birds

A telecopier comas cultering over the goody oil spit carrying a pait of moderniely powerful lasses: Investele infrared baans lance down to the callipal and webm a accord or two the oil bagms to out functional and is fee houristater the last of the paired oil rate burned of the Arctic environment is safe once again

That scene may become reality within a few years bocause lasers offer a safer. and more efficient way to compare of starts

Example when count of an of split in the open first use and split in the open first use splitting of splitting splitting but first of splitting splitting and water of the splitting splitting splitting splitting splitter logit the ph down showing lower the owners, but splitting splitting showing splitting in shokes, er of the splitting splitting splitter logit splitting splitter logitting splitting splitting

This is the conclusion reached by scientists at Physical Scianoss, Inc., a small research company in Andover, Massachusetts

"One of he mail difficult statutors, anys Peter Nebolsne who is heading the measurch effort at PSL is whon a tanker begins leaking of without the crew restering of without the crew restering furth several depicture The task of spilled of could stretch out over a hundred miles or more if

Is such a case the oil would have formed a huge number of separate pools. Remaps thousands of grant would be necessary—as opposed to a single helicopter and its basis which are ignite a pool of spilled or in a few seconds.

PSI's researchers have repermanified with two laters used in tardetim a contrauout-waive (OW) loses, which heats the cal and beginste vaporate its logmost layer, and then a powerful pulsed later which ignities the under the relater the relation of boneath is ablaze. They abbased a CW cashon does de aser with a power output of a few handhwid wate and a power of one megawatt for a power of one megawatt for a

"Well be ready for a backyard demonstration soon, asys Nebolene, who a looking forward to a test in Canada in a man-mode water-soa pond --- Ben Bovis "Whetever the sun may be, if

a centently not a ball of faming gas '

-D H LEWROCK

"A great swindle of our time is the assumption that science that made inligition obsolute All science has damaged is the story of Jonah and the Whole Swiny of Jonah and mass and generations."

Kurt Vorsiegus, Jh



day be zesped by insers

CONTINUUM

HAPPINESS AND THE TWO-FLUSH FAMILY

Is your family domain fuch with severe dependences devices? Do you have a tab you can call your own? Before you sink that oets cash with a ree can or sound splain, you might choose is wreat in a second bathnorm expecially if you have onducted by Matjone A limma, of Pundie Uneventy's School of Consume and Family Soemoos

Inman and graduals student Narge Sain interveweld a total of 200 lamites. Acconting to Imme, poughes whose cheating included more than one bathsoom let hopp asis and cartested and parseved their bathsoom let hopp asis and cartested persons, home, papaceas comfamiliate convenient, and organized They folls they had acheved their disered priviloy

Those in a home with only one bethroom fell more hermod in, reagned and indifferent and considered the place impersonal. Far from reflecting the qualities of home sweet home, the single bathroom dwellings were reled as noisy confirming, depriseing, stretistik and crowdod Couples with chill drive reported even more trates than did those without riskrism.

In each tendy, humberd quadromans containing quadromans containing tendes of the second mental parciptores, stabulas tenses and adsplators to attrace Families incomes potenses and adsplators to attrace Families incomes powered a links range mental and and the second and tenses the number of battracens based out and tenses that seems to be very very important¹ comments tenses that sets to be very very important¹ comments tenses



Fursily weeking for the bathroom his meter what your income or yo level a second bathroom may be the ultimate key to heppiness

EAR BUBBLES

Its a clear plastic bubblethe sum of the and of a man's flumto-with a perciflum tole in it. Stock if in a partially doef sair and it may work botter than a 5500 electronic aid

personners in second personners in second person appect against the head it accurs because the device which is indevice by the local and region and the second region and the second region and the second region and accurs the second region and the second region and accurs the second region accurs to a second region and the second region accurs and because it selects works and the second region accurs and because it selects works and the second region accurs and because it selects works

Souble contenders and has only a small cosmetic advantage over an ordinary hearing and Unless your har is long enough to cover if exorther at linst acid t acidm to



Richard Goode models re receiverstate per bothin

have scap in your ear. But it doesn't need bafferies every bringht, and alactronic leedback won't squeet next to your electrum if your fingers fumble a volume control

Appropriat the bucketspresent at 820-an available prof to poper who pour revolualises the impositions. That is adventile impositions induces about the imposition and its programma is go on those and amount the imposition and and amount the imposition and the adventile and and and the adventile adventile and the adventile adventile adventile the adventile adven

Ym not adaud o' death 1 have no leekings about it Out I don't belave in a superior powar aid that we wil ai' end up hovering above. Horedy itwi's crupy" -Marisro Demioh

ON CLEN





The meet of its under controls acressing and days reversions acressing acressing acressing acressing reversions acressing the acressing acressing acressing and acressing acressing in acressing acressing acressing would acresse the supprised by an attack. The true care acculations acressing would acresse the supprised by an attack the true care acculation acressing acressing

PAINTINGS BY DANIEL RIBERZANI

rereprephysical boost the solders to a fissioning state of reachines heiping them defeat energy troops. After the victory, moreover those with would be could use the excess instagregation to balance blood pressure and to counter shock.

The first biocenary or loaded on a promting and the service's hard carbon intension of the can base a direct of loctor in-production of been reusabinemister. The chemical imboar ges That Sarry signals from the morphological in the sarry signals the morphological in the sarry signals been appropriate in the thread the sarry inputs that control all emissions, pactory cases and boothy functions. These chamcales are in executing, macroscopic for pact about everything we do and beil

Notes, all in relative barrow in discrete of vatimes, all in relative balance on the hearthy brain And standard bailed has been that the brain markings the balance market a disclaring relativement of the body or the world. Balrow research coming out of the Massachurow research coming out of the Massachueste institute of Disconlegy. Harved, and the Lanversty of Landon indicates the such the Comments of Landon indicates the such assets institutes as incompanying backtage and the Indicate in our black

Trucp image of these findings take on the efficiency of the set of the motion bors an instructionary. For just all systems instructions along the set of the set of the long/truc along the set of the set of the weight the set of the set of the set of the and hencing variable pair. Indice set of weight here are the set of the s

The polarized for use-and ubuse-offer involves is that abloc hexistrementary poductor is to varial that some expanse adjust type of the top adjustmentary (business) takes to the top adjustmentary (business) takes to the top adjustmentary (business) adjustmentary (busines

Then in 1909, a German biochemat named Casimir Funk noticed a shudtatal similarity between epinephine and tytotal case are an ammo acid component of protein foods. Furth concluded that the transmitter was derived from the nutrient thus identifying the that nutrient procursor for a chemical in the baan.

Persistich on freee obstances continued but programs was approximative Trmity, in 1850 a Swedeh toocheman ramed A Lund used fuencenth gift to mesure the mesuitative amounts of neuroteneember producid by the bain. Litis provider and Patrimetric de producid by the bain. Litis provider and Patrimetric de contramenter objetter and Patrimetric de potents with a procursor to docermen they could mitigate the deserve

But trainer tor Parkmon's disease was as the beginning. Sciences were starting to undestitute other neurotamentees and dhar nutrient percusses, too in the early Sotes for matrice, the blochemial and Nobel hareale alius. Avened, thead or a list at the National Institutes of Head's studied such neurotamentees as percention—molected

What do carbohydrates do for these people? Exactly what anthdepressant drugs do They improve mood, diminish sensitivity to negative stimuli, ease the way to sleep ?

 abcermalities from depression to inactinational acetylcholmit, whose level is conspic-usually reduced in thisse with Alztermers classes. Analysis ambituous gool was to entibled in the reducerant's by which neurotransmitters wave formed and relessed. And the fact given part of the protolessed and the fact given part of the protolem to a casck young mausendocarrologist and physioan named Rohaed Wurtman.

Wattranis piece of the pazele secretor rerow ancough. He was injung to lique out tow the bian might control line abba and toos of oathern chemasis in the body at larges drafter a while he bagan to focus and earlier to we abbatrace the amino additional micro abbatrace the amino additional precision was abbatrace body on the back and the adrigues bysone transamase which backs down the traypare bat has been consumed.

To do his experiment, Warthain kept ordinary laboratory atts on a standard clet and charted the chemical composition of heir blood. Soon he noticed that each evening after dark, the level of fysician transmittate increased be a factar of he

Figuring that the arayme was controlled by the brain, Wurtman removed the pituliary pland from sevensi rels. Normally, the piturtary a buildine structure in the center of the brain, stimulates the production of encymes. The operation should have britten the nightly rhythmic increase in the encyme but the cycle pilod on unchanged.

Worthware was still working on the possiblem where in 1980, he provide to XMT. There the met the renowned Dr. Henrish Murice a member of the school's number do that the member was observe the tail instimut, argand to loarn at the about number of learned as loarned and the about number the him," Warmer regime. The tot mether when him, "warmer number and the table the semate as a learned as a start total to be live where they induce the formation of enzymes".

Investigating the lead. Wertrain learned that the armo acid person has in fact armed in the learner induced the productor of the anotyme typesmit transmissions. Furthermeter since risks are induced and ad only along at right. Thus, "Wurtrain reasoned along at right. Thus, "Wurtrain reasoned will be dealed by the animal set of the learner and the animal set of the the through the transmission. The based was comtacypt but dealed; by animal the set of through but dealed; by animal the set of through the transmission of the based on through the transmission of the based on through the through the through the set of the the transmission of the transmission of the the transmission of transmission of the transmission of transmission of

Wutingn's seams AVT went on to set that hypothesis by heaving human volumesis failed "It someone lasted for twerty-four hours." he score found. The block levels of the annoacts stayed the same. There were not tryptime at all So it was eating and realing ation that mode the anno-act insylms out parent accordence the anno-act insylms out parent according to the shape of the ruptime varied according to the drage at an

Watman took the discovery and made a charmer indirectual leap. If a meal centrals the level of amino pools in the biclood and if certain amino acade pays rise to neurolatermitars in the brain. then wouldn't the meal bod! doctate how much trainemitter was made? And if so wouldn't the meal inteence between and even docean?

Wurman decided to try to enswer these questions by takyting tryptophani, in cominon amino acid and the precursor for the neurotransmitter serectorin. Serolonin, hought o affect deep depression, and pair a still only partly uncleased Vite, Wurtman resonned, chemical and behavioral work in the lab could prove whether hypophian che' after the lace of serectorin.

Warman first feet was an unmitpeder aucross in lag workboardsyntis pair kytbahan an belook du also users jame i kytteel in the block du also users jame i kytmosowe, paralleled offan chinal experneres. De Einsel Hermann of Tub Laversty Medicai School. (In instance inswedtist when pools ingot, pair hybohan here fail adreps more quickly. And ony iwards (Decision) of Medicine Inswer Inst. Iwards (Decision) of Medicine Inswer Inst.

But despite the initial success, Wurtman's second experiment rated many baselines here wanted to try to Jowan the level of serrtorian by decreating tryptophan. And to do that the gave his rate a close of initialin the inversion brains reasered than the constraint. after the consumption of carbohydraxes insule switches on the locary's metabolic upties moderning caung it to consume the annonacids that have entered the blood By meeting his annals with result. Wutman teacond the could incluse a clop in the annonacid hypophera and in the neurotransmitter exolution.

But the experiment dual t work. Wartmen and this learn soon reviewed that high classes of insulin week causing services and effects including chesto disturbances in the readbear metalabalance. Fore insulin weap pat too powerful to yold clase cut results.

So Waitman decided to fixed the rate a pute calcohydrate med instead. The would simulate a normal level of nation as part of the depether process and would not throw the bian out diversitik Waitman had asimate an important corner. He had decided to use local instead of a drug to induce an affinitiod instead of a drug to induce an affinitiod is provided or induced of agenost the body is possible methanism.

But the approach balled too in fact, a meet consulting of carbohydrates did not lower the level of servicion in the balan if a meet drag level motived. A search of the Bossaue todo Wartman why: Tryptophan was the only armo acid not all-locate by insulti-

The soperano Worthern proposed as a result of this limiting less simple but profound A medi of catholystatisk woods simplices the societion of insulin The insulin would wais all attimus acade servery trypolystam from the blood. And without compatitud would see the totals, attimulating the production of the theurist acade model typolystam from the providersembles academing the production of the theurist academics academing.

Moreover, Wurtman suggested, when wert has brain haid a shorings of persona, i would comhow develop a criwing for opbringthales in other words the bitain would always be altimate to the body or urgenet satue. And that knowledge would then determine what we are

To test this theory, Wurtman and his wells, Judit, an MIT institutional, studied a group of obder instructions the outwork carbony datase. The subjects were ellowed to select here reproducts of their own make liven tools raiked the calonic bit controlhydrate and protem content. Between missis, here hood so cales to carbohydrate and protein anacle. Toom winder mechanism

At mediates, the Waithes found there observes subjects consumed an average incurt—subjects consumed any even protein and carbotychitas, in nearly testpost-pertect balance But for snacks, these individuals consumed an additional 1000 others per day in ours authority 1000

Twie clear hat two things were happening says Wurtner, When he subjects were eating it meditions, these seguidary satism functioned property. But during the day that system slopped functioning, and they sudderly needed to go out on carbohydrales. It think, he adds that they were using food as a forg.

In other words. Woniman explained, when habitain sensed a decrease in the solution level, if initiated a craving for carbonycintes 40 cent These carbotrycretes started the mean cascade which, much the a drug, allowed hydrophen to enter the bean using the level of sendorsm in the process.

Indugit this theory is ter from proved, the Wutmens recently gave this obvious volubens lenifusioners, a divident this multitest the production of sensions in sits. The result. The volunteers reduced the amount of calofwdiale energies they inopegod.

This body Wurthan adds induction and and between cetofoxidae classing and assotorin addied opresson. Naki Jady's bases poch how they keel before they aut the canboty dates and how they keel attractage. The saturation of the same works depressed tog they use the same works depressed above. There unterpay Attract addies above. The unterpay Attract addies above. The unterpay Attract addies above. The unterpay Attractage the cerbo stacks, the assp. They say hey feel and before even calculated.

What do the carbohydistes do for these people? asks Wurtman "Exectly what an indepressant drugs do They increase esto-

 By the end of this year there could be an entirely new class of substances, called medical foods, cansisting of nutrients thought to alter mood and treat disease.

torin and thereby slewate depression. They improve mood, climinals sensitivity to negative dimulinease the way to sleep."

This issue consistent with research two prochoologist Norman Petershit have prychoologist Norman Petershit have prychoologist Norman Petershit and there is less schieft some peeple consistent is less schieft some peeple consiscited SAL for science at the lay synthesis of the reserve time to deplet alloss at knamd the same time to deplet alloss at knamd the same time to deplet the byte the some time to deplet the byte on both decrease is position with the to be a decrease is position in the time to be a decrease is position in the last constant and position of the same time to be the to be to decrease is position in the last constant and position to decrease is position in the last constant and position to the source of the source both the source both the source of the source both the source of the source both the source source both the source source

Reserving also speculates that BAD may be reliable to an increasive enrouted of the territorie melisteria. *Meliabane* is supprintered by light, so it dan contentines also cumulate clump the releavely clink days of which what also beginning melabering bails which what is then experience that the endormal sector and the carbony reliable ing dispression and the carbony reliable classing batematics. The notion that numerics regits work as mode regulators makes some to Reperchan. People with corresponding the new account parving reting cleaning, even ancessa or zutima. The align "Their regular eating put terro may be an above to regular network of values chemicals in the bara.

But setations is not the only neurotranstrative implicated in doprastion. Reveals includes the is detoot incorpore, three may result in chinal depension as well. And according to Wurtman, nortpensipherers is amino-acid persources, tyrosine may be just whet the doctor createred

Prochamine Anni colondaria, of ferrance Italia Salami neuropayang inter possibility lar portrater, one that has never a large colondaria protection and the has never a solid externa methol tools through a solid external depresent interpreted markedly according to the psychological learning measures and within one week hard opposative symptotion statumed. A resumption of systemeter weeked as social marked market or systemeter weeked as social marked in systemeter.

Though Gelenberg himsof is skeptical of those results. Wurmen cleare that they make ennee. It's hard to repletate auch experiments, he says: because depression is nalated to nonspringhtere deficiency in just a fraction of the cables.

Moreover, the adde depression is just one of the many malacies that nutrient pecutation may one day outer the most stamate: use for these numerics the says, may be in the treatment of Abhammer (classisse which all its the elderly with a progression loss of memory and, thenk full blown comprise.

The field relation table prevance through could help Adhere a define came in SML and help Adhered to the second help adhered of the University of Existing heads of other detaces, the detace by David Sover, of Londones to Adhered to Barbarra and the detaces and the the David Sover and the detaces and the detaces of the detaces and the adhered adhered to Adhered to detace to Adhere ad Adhered to Adhered therapies and the adhered to Adhered to Adhered adhered adhered to Adhered to Adhered adhered to Adhered to Adhered Adhered Adhered adhered to Adhered Adhered Adhered adhered to Adhered Adhered Adhered adhered adhered to Adhered Adhered Adhered adhered adhered to Adhered Adh

Wurthers fest tood the sharing or refer ong concern her an encoders in distay whole a chalability is leaved analyzed in the basis and the sharing of the sharing and the sharing interesting a group of vehicutary subjects auplemental chalane in the torm of a calcular basis and chalane in the sharing the sharing the sharing and the sharing the sharing the sharing the sharing the recards to sharing the calculation of the sharing the leaved and the sharing the sharing to constraintion with the sharing the constraint the sharing the constraintion constraints and the sharing the Look again: Here are the erstwhile secrets behind objects in the Museum of the impossible



BY SCOT MORRIS

Last April and May, we devolved our Garnese outwarm to the Minanum of the Hippossible, our collocition of objects that look and it they could'it wate bait do . We assiss with the classice complex science have of a possibility of the proposabilities. This offer any science have offer the other many family and the science of the other hyposabilities. The complexity means and chardward a Stord partor proto. New SHO protogram of the our of s Windfamily to the lap for wanted, when are other how wanted, when are other how wanted, when are other how and called the science of the other how wanted, when are other how and called to Hind the how of the how wanted, when are other how one offer how of the how of the science of the how of the how of the science of the how of the h

Con in a Bonk, Daniel Wałter, of Harmony, Pennaylvania, won with examples of octria in bottos: a quarter, a Suzan B. Anthony coller, and the 50com perce halfs displayed on the uset page.

Water devised two different methods of accomplisiving this feet, the latter of which is ampler the headed the command is was rechtod and harmonick is into a U shape account a clowell

Then he placed shock-absorbing rubbar pads inside and curside the bottle and flattered the corr, using a metal add insorted through the neck to carry the force of the terminer PLINNEPS-UP STOD

 Bortled Baseball Michael Obermove, of Arahem, Calforma, Instanlassid abaseballerough to remove the nablemland cover. Then the readbled the side, abaving the last halt rich loose. He taped a balloci to the end of a dirioting strucrostred in the the engry side, caushed the side. Institution 6 mb a baar bette He attached a cake-decorating bag, filled with plaster of Pans, to the oder mid of he straw and squataod the plaster with a ball to reasore as shape. After the plaster with he removed the straw, cut the balloon flush with the skew, cut pulled the remaining stiffshee tight to company the fusion.

2: Kostrud Cegarette, by Days, a probasinal magnatis barn Andreen. The second to the lack a cottypicate—the off factor and the second second to the organized splitty in a two thekreserve of caliphane before type the level. This keeps the paper tion teacry. After you to the hybrid the write the paper too teacry. After you calibrate the hybrid teach and writewer the origination. The write the organized calibrate the write the organized to the two lack operating.

3 Argossiche Bott, by Chrestopher: Datio, of Birmingham, Aubena Thei may be the molit popkeng of all the entries, but because it can be corretructed only by a machinet we couldn't

give a top proze. When Datka sent in his entry, he was nearly frished with his resociatio's degree is machine whop lectnology at Besumer State Technical College.

The object is constructed of three separate parts the rule and two objecting precess of alternation. First the out and threads the terg altimum pace, there out and political dis tip to a specified diameter (in this case, 0.6825 with). He out and reemed out a short altimum cap to have an outside diameter to match. He put his long picco m a theorem to com-

PHOTOGRAPHS BY LEE MCELFRESH





Ear weeks our office was swamped with baxes marked fragile, as bizarre objects and odd creations rolled in 9



traci R and heated the cap to entring all colvey. The rest was just e native of filling and polarity. A periodoxical plang and consolid by analhered-led genocinin Martin Gardee. The end and its polarity of the plant Analy Clemits Column. Martin Molicolar Ring, by Armes Socki, of Molecolard. Even Socki, of Molecolard. Even Mart Molecolarity bards

are ships of paper, and their cross section, just a line. This one has a

sector, just a file: The one has a oppare cours account at all points A quarterized in the registrans amount will one united on and would have be note four company tags mount be noted four company tags and be noted four the phose the phone coverent wide phone to have not coverent wide phone to have not coverent wide phone to have been and was powed drough at an angle, then the reparated ends every between predecars to the wood. Sunding available have reduces the appear and of the noted to a

Lett. Growt prize-wrowny osw in bothe by Weller. As as ensore, hit bothe the depth reach. A nump-up, bothe gees to Obsenser for his basebal over. On his pars, Senith Albass on (Vice, right), Dary's Anathel ogenetis. Dake's col-and Ucedwards' anchoid or all. In our May 2024 stats we suptawed how fallow May 2024 stats we applemed how fallow







MIND NUTRIENTS

These reads inter scontry loon Lot stand by CR. Report of which reads the scontrol of the start by CR. Report of which reads the scontrol registration of the scontrol of the scontrol of the right bit has an everying age of the scontrol of the Report scontrol reads and the scontrol of the Report scontrol of the scontrol reads and the Report scontrol of the scontrol reads and the scontrol reads and the scontrol of the scontrol reads and the scontrol reads and the scontrol of the scontrol reads and the scontrol reads and the scontrol of the scontrol reads and the scontrol reads and the scontrol of the scontrol reads and the scontrol reads and the scontrol of the scontrol reads and the scontrol reads and the scontrol of the scontrol reads and the scontrol reads and the scontrol of the scontrol reads and the scontrol reads and the scontrol of the scontrol of the scontrol of the scontrol reads and the scontrol of the scontrol reads and the scontrol of the scontrol of

Bui despite the apparent success of tools opponented softworks the loss provision of the softwork softwork in the softwork program in the country and the led dimtrogeness of the softwork and the softwork base multiple softwork and the softwork base multiple softwork with the softwork base multiple based in the some softwork base is and the based of the some is sortwork base is and the based of the some is sortwork base is and the based of the some is sortwork base is and the based of the some is sortwork base is and the based of the some is sortwork base is and the based of the some is sortwork based on the softwork and the based of the some is sortwork based on the softwork and the softwork and the softwork based on the softwork and the based of the some is sortwork based on the softwork and the softwork and the softwork based on the softwork and the softwork and the softwork based on the softwork and the softwork and the softwork based on the softwork and the softwork and the softwork based on the softwork and the softwork based on the softwork ba

Indeed, a number of cimcal psychologents say sky sky skal heli nutrine precursors will ever replace drugs. Typiopinar er cambolydate hooks will never be ac ritective as allerprag pills, meny contend, and typsine of high protoin meals and never in crease alertress as well a amphetaines. All "It is critical, bus ged inprohetaines of "It is critical, bus ged inprohetaines of "It is critical, bus ged inprohetaines of the critical schedule that is the indicated and the state of the meals at explanation.

And Booch Linvestry/b ID Beech Zeek, who subachder twenting and order of inform formative worth shall allowing the remote bail there is not bedown to be a strength of the bailance yelds free effects. Strengt yes, but have a strength order of the yeldporton takes of bedrins, thereas, and hypotheristic takes of bedrins is circled and program. In there Anwere disk allows the adds program without the add takes and a program.

Wurman stares thas concerns He emphasizes that medical use of nutrient precases shauld be lensed users shall FDA guidelines. And he believes that all of his hypolitiese must be estimately wonted in tighty consolitat human suckee. Toward that end he is busity trying to convince multineternal local end pheneticseutical companies. Is participation there with Tracel here may be the transmission of the an origin of the transmission of the anti-trace of the transmission of the tracel here the trace of the tracel here the trace of the trace of

But each return to dead werep and ruthent procursors tai as the an enterther for Althuman's dessare detering dependent of a Miberna. I cold bene procursors will solve a valuate purpose. Datine stypicptans and hommal And because they are notward subtectors to trying variable us, for the fet time, without damping the details not here to without damping the details not and only of the lanctance beam CO





FICTION

The quintessential future bureaucrat knows the power of words and will use them to justify, to control, and perhaps to destroy

REASON SEVEN

BY BARRY N. MAI ZBERG.

Longoins captured securil documents " A smallering of context Francine, however, was disequenuous, and ther Rivor The documents' are intended to read as while to prace the context, but when she clid her restyle. They contain polemics about the need for world and is clerk. Dun't all of the less sicken you? concuest interspensed with statistics so dull that they coal mines resources. The style is horrifying but that bloc and the Western forces of light

delusions of grandeur here - cost me a promising re- is more keyed toward the smoothly bureaucratic if is intervelue supervise it is of this that I work to speak- all a matter of twining I. This is particle she and "Not however hestartly-for the fies i have been instructed mean you write the stuff so that when the troops come to do this. Otherwise it is not to be discussed outside in they plant the documents and then those documents.

PAINTING BY FASSONI

of Pussian, hints of Spanish, un peu French, some Chi- me-I knew less than --I was also a little bit of a panish translations anyway which excuses many limitations in action was one of disgust. "Youre a functionary she

They are not lies. I choose to believe they reflect a

We ve heard that satisfies a century,"

from somebody's files?

scripts and writings that were supposed to

I had never done so before I gather that I am being rather light on characterization somption: are not to be nealected in certain

was the interior of my apartment, if not my unaryminic proche (We I tred seen iffie and relevant under any occumstance. They are

heard of anything like it. Why are you telling

Ye sort ye wartari a sharing watering ship Flancine

"Crazy? I said and added an agency dictam In war nothing is crazy and we are in deadly combat. We make up everything yes but only in a light format. There's a style Actually, I emphasized its a very de mending job fully deserving of its GS-mot-

Nou mean there's a whole little disguiting army of clarks. Of paptured secret dop

"Our official classification is informational writer I said but I wouldn't really object to

And so on and so forth, It was a difficult arruments artifications and dispet pertaps worthwhile to extend this transcript 1 of the conferred that my occupation inclesble something indeed clerkly about prepar ing crude delta in uncertain terculosi of by a skeptical smettering of the public. These interests who are to some unspeakable flut

namin by fast I related by the Career & Sal

captured secret documents, reporters are course kept separate not only by area of

In war nothing is crazy, and we are in dearly combal We make everything up. yes, but only in a tight formal. There's a style sheet anyi there are lists of fonts

A note on human wanty and folly. In the sleep in the windowed partition do may his pade and bibliography so must I have Artilles Caro, San Mousi de Allende and the haste and prossure under which they at least a page and sumitmes two of prosit a certain inner rhythm. Eighty-six kowso to the oppressors an arong build for the American rayon hold the immole rayoldebese documents of course are written in a prose of the most style and condetoasly but realism but every now and then-as | m-

surject to Frances as I unsist to you-the hit individuality

They understand this in the agency, and stand. This is not a dehumenizing business

So that other moth-my library, the collected works-is rovolate stark but for the shelves and the fair future service with which rated it is that place () like to feed in which a horistrage to larger purposes. For those presures cated in the Career & Salary bechure for the advantages of this employment but a seventh reason too And it's he who would be artists who would use the tenain upon which we have found our serves. And my elevation stacked floor to contain not only statistics but a kind of pomy abscapes. It has to be underslood, is very important to me it matters it

And a difference has been made my carbined cocuments have there withrashifted the balance of popular comon pway position as we would call it at the eigency. dramatic weight. Loome before you not only I come to escient not only Frances (al much that opes past her. Francine being ulumns and I worit slop there II write my concreation II send communications to clarks like yourself making up captured tures and equations, our rotten entropiewill and it will rever be the same for you span Jasi you wait and see

It's merely a job Frances it's employment ike any other, it can become as routine as nation, helplessness, sulfering-to which you are exposed every day in your own work. It is necessarily impersonal. You can get used to it, believe me

The lower baccess number of the sead by most order, not all ancomously makes why lipst hermseters. I had to get of the floor couldn't look till then spen approach the tilt her rearcose, would them as they stated out the rearcose, would them as they stated out the taken of the search of the search and the taken of the search of the search and to include states secaration, cann as distance state years whet exerts and states the entities of the search of the search of the measures wate common in their states then.

Eshould explain—ket Francere seem unduly unsympathetic at this poet, so repretemate that a sensable reader might ask. Why is a period key pounder histored with the anymos/2—that it was not necessarily above the way.

On corvery for family managed by a voltee comparts arriver. Financier and 1 had senual reloxon and expands are monitor strumously and reloxed with the common structures are the neural to come-statemistic oblages Presents I warned, a considering relationships and warte neur families collapses Presents I warned, a considering relationships and warte neur families collapses for post or significant out to the post for site of a significant out to the post for each male information and receptions, and the values down and receptions, and would lar rather get last (especially anonymousity) than become enclosed in discussions like this. I feel usafiled powerfully so

This in unbelievable, she said porting to the bandws. This argument was taking place in the Ibrary. I had made the matake of taking her into the Ibrary. "You save all of this stud? Youre broad of it?"

She reached up took a binder opened it and stand at a These tuil of Prench' she said. 'Und strange looking lettins. Youknow there land up tooking lettins. Youknow

Cysile: 1 sock for the Russian language This gates it authenticity Keise on going brough you'll find something they ou cannead fryou justigner time. Imaintened assesse of proteinity work: Even then Tony werted a reading

She turned some pages "Rysning dog," she rood: expended same will bit write the mask and the penientary of the century will roll carroot whole enclose them.

Dominican Republic 1988 I said rather pompously

Prate the keypers, for the keepers will set us feet, know the truth and the purt will be any standard.

"We "I sad "len't that good?"

You wrote that?

Every word of it

And yours proud of the?

"Tim not astraned. France if that's what youre asking me to say. I have nothing to be astraned of " Biochairconne dhour dhour nor nor nor the and thou how may his motion must be based to be and this than the in the base of the enough the intermediate the central y based with the others and yst yours a class, parts based from the shell thew the down uncerned from the shell thew the down uncerned them is benefit, the add the based and been with based to be an other based the based to be the shell the shell be the the based to be the shell be the shell be the based to be the based based based of the shell be the based based based based on the the based based based based on the the based based based based on the the based based based on the the based base

You're causing disorder

I'm what?

Value causing disorder, Prenche, and I wont have it. So please if m asking you to stop

"Im causing disorder," also said fercely Of my--"

This is mylibrary improved of it i worked hald to put it together. My writings are here form want them disturbed, and it dant went to assure over them is more on?

Site opened the binder, clawed cut a sheet. This says something about sheet quotes she each rolled it no a ball threw tait me She report out another sheet soanmic it humediv.

Trees it light spot if Fancine 1 (said 1 light myself beginning to flush 1 linear aningthms would shortly follow. I am guts sinnear solution y collected works. Some aspact of permanence and history is imported to me. This is testimony Call is evidence by au like Call if the evidence of the century contraductives in





Having tamed the unruly hadrons with his conceptual whip of colons, flavors, and quarks, the Nobel Prizewinning physicist tries to snare the elusive untide field theory in the werd, ten-dimensional readm of "superstring"

INTERVIEW



Three quarks for Nuster Mark* was James Joyce's cell in Printegarle Wale. Was it a pice for danks from the pubmen Humpthrwy, asseguite kny, or three acts of low?¹¹ could have been any of these says physical Nurray Galt Marn with a sky par But for him, quarks were something dise when he setted on the name about 22 years ago They provided the essimilar locks of subsome pairtides.

"I think people have been too actor shou all of the," Get Hern emanded accerds in the Accept Calculation from "I frequent would be entering to use manner based mould on peles because I wann't and any manner Cacad gree them would be approached be permanently II had gwenthem a portoous@reak name based on some property we below mit loads, alway might in the Markan shorts of the real give, of occurs, a tiffal the name news meant withing in the based and so would new be obsolved.

Geli-Mantis whimsical name-osting didn't begin with quarks in 1961 he entitled his moraumental ordering of all the landsmeetal parkides in "Egificial Way." The name of the backhard doctme desorbing the part to weatom. Geli-Menn issues this was another "cotoses jak- And serve inthere sity paciple involve final do agon." The side. "They've even written is doct about if "

Que the document of the second method method and the second method of the second method of the second method of the second method of the second method me

PHOTOGRAPH BY CHRISTOPHER SPRINGMANN

pear Gell-Mann was one of the trail to see the hidden design

In the inagritude of its organization, the Exhibit Way is constrained companied to Dentry Mendeleyers ordering of the alone alements in the pendedic table. Barth Gal-Mann and larbail physical thread Network Independently inorities at a redshift among hadronic (the mod common of which are petities and neurosci). These particles interor stuckness—the complex landscape of cusho—begin to emerge

Model Photo capacities of Indexines, guide double have "local" to characteristics which Geld Mann auclined up, others not surger. The only offersing is browned to double torcing inference browned to double torcing inference on the envirolight free Lubra's too model factors were also the mass. The cost down are were just the second torcing and down are were interliable to the other and blocks were also to use conceptualisation of the too be obtained that a hadrow node to be obtained that a hadrow in the lower pointies from a hadrow. They was to the obtained from a hadrow in they are too the obtained from a hadrow in the source pointies the page.

Secretar three days are infrance to be too had they are infrance to construtions had they are infrance to construtions and the secretary of the secret with a third to construct when a white they have a ward in the compare listic point regional protein secretary and the secretary of the strange days and the secretary of the secretary of the secretary and the secretary of the secretary of the secretary of the secretary of the seceration construction the secretary of the sedered constructions and secretarian the seceration constructions and secretarians.

One wey to list the thermals is to category the particles according to their thermatical shadbor, we winn plants are highly according the state of the state of the state of the particle shybrids. The groupings are made according to sign which is partial to the according to sign which is partial to the though space and incomposition, a instate phone concept based on a matternation detrifies the symmetry of the particular detrifies the size of the symmetry of the particular detrifies the size of the symmetry of the particular detrifies the size of the symmetry of the particular detrifies the size of the symmetry of the particular detrifies the symmetry of the size of the symmetry of the particular detrifies the symmetry of the size of the symmetry of the space and the symmetry of the symmetry of the size of the symmetry of the symmetry of the space and the size of the symmetry of the space and the symmetry of the space and symmetry is size of the symmetry of the space and the symmetry is size of the symmetry of the space and the symmetry of the space and symmetry is size of the symmetry of the space and the symmetry of the space and symmetry is size of the symmetry of the space and the symmetry of the space and symmetry is size of the symmetry of the space and the symmetry of the space and symmetry is size of the symmetry of the space and the symmetry of the space and symmetry is size of the symmetry of the space and the symmetry of the space and symmetry is size of the symmetry of the space and the symmetry of the space and symmetry is size of the symmetry of the space

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In this line, embryonic universe, only supperparticities invited—neerly massives, taxeling at the space of light responsing only to the power that bland loth from a mass he are of a benefate. Each particle was outshed to such a density that no pretelen were unnear noble storing.

Supergravity theory suggests a one-toone correspondence, or symmetry between two distinct species of lundamental particles before and lemitons. Bosons are corrers of fonce termions are attached by

 Superstrings neduce to four dimensions if one supposes that the ten dimensions spontaneously collapse and roll up into a little ball at every port in apace-time, 9

force Supergravity theory holds that at the Big Bang lemons and bosons were differon theors of the same particle. Every particle in the universe today—boson or lamon should isomewhere have a superpartire of the obsolet access.

The unrock had shap, been loade-bine of the second second second second second second second in the second second second second test interaction second second second second test interaction second second second second test interactions and second second second test interactions and second second second test interactions and second second second on the second second secon

Gel-Manris scient work has boused on a newer of spring of supergravity superstring theory. It calls for a primeral unswerve of two dimensione. Gell-Menn thinks that supergravityrs an approximation of superstring, a launching point to "pursue the strine."

Displays, Bi-thubdressoral attractors of physics, Bi-thum rall links gencerime to pusses he other intensis brads, pe-2-bthuman policy and the contraining search for the brads, and the contraining search for the other search of the company contacted and the rest own the company contacted on the other search for attraction of the theory inguides or can theory its when he select this latter out of these choices, the repsilves "built starver" As a

Took a course called Physics in high school: Gell Marm models. Twees the duiof course I'd ever taken and the only access hist, bigt, mechanics, sound, electroly, might and schools du, at they had refering to de with one another I could's pose by soond my kernaloging a study of a clock the school my kernal school and a clock the school my kernal school and a school better. And at age Titlers. Cellivion dosided the Linvergie I course inverse.

He graduated boly years lists and year years on bolk of a twenty-one for had here Ph.D. in chysics and was off to Process University Instante for Adverside Basis (in 1685 his Districtions) (Interface) (in 1685 his Districtions) (Interface) (in 1686 his Districtions) (Interface) (in 1686 his Districtions) (Interface) (Interface

Today at 10%-leve, Gei-Mannis time is at 1 consumed with physics, but he is also a diaction of the MacAntais Foundation, which bestows fallowships to worthy scenarisate and antists. He is a member of the board of trust assis of the Aspen Center of Physics and is a othern regern of the Smithuman

Ron Schultz interviewed Gel-Mann in the physical a Agen home, his Cellech office and some of the best isstaurants in Agen. Pasadame and La Jole. Celliong

Drefs the hore one over if hale was provide integring you expression be physical potential poor and the physical point integring you expression in causes a whole unidentification of the second and the physical protocol and the second point of the physical restors. All the disapped pilots a caused in the physical and the physical physical physical and the physical physical physical physical physical and the physical phys who described his obstrain research on a containvictus bent this headshife the energy for various discoptions of his energy for various discoptions of his energy for the boost energy for other energy for the boost energy for other powersky that begin of in takent state was one --which energybody had allowgh and the boost energy for all takent and a good point beat the boost energy for a good point powering in seven and a second bag about the boost energy for world bag about 1. could'nt get heave from her rotion hat the central was a kind of dates

These applies particles with the order the order of the power of the share of the power of the p

consider data come easily to the human ming bocause they seem to contraduct everyday expressor, the evolution of order high satisfacty determinion. An orderary por son used to boking all the world satisfar through to some of party bit of data through to some of party bit of data that the satisfar model of the satisfar double if the model physical that doe when a qualitate model read on when a qualitate model read on gl critical importance in calava work.

Greek What are the contral ideas in diaman tany-particle theory today?

GetMann NI heoratical work on fundsmental physics a based on quartum field theory in which every hone is camed by a quartum For electromignation the gusttart is the photon, a packet of electromagnets arrange

An state schemascher des schemascher postere electric denge, and, circulating abaut he nucleur, an one dectrors will be an experiment of the schemascher dectric ben and the schemascher dectric ben an experiment. The schemascher coming than the inchange of a proton. The electric regress demotrary – these is no electric regress demotrary – these is no electric regress demotrary – the schemascher electric regress demotrary – the schemascher electric regress demotrary – the schemascher and proton schemascher and proton schemascher be all de no constructions in the schemascher and an electric schemascher and and an electric schemascher an electric schemascher and an electric schemascher an electric



The quarks are held bogether in both resources and the second se

The rame cape has refurg to do with we cain fail is a pixel (seed on human color viser). Colored quiete and colorid gluore repermenterity control ensates the "etal" number and pixto and con never escape they anne besided only notices (but the animal organization of their essations mode a recovery telening is a sumtion of the control of the set gluor produces by 61 of the essaphicides, add instrum-

Otres Will we ever be able to delect an un confined quark?

Garkiam: I port the to be tended to the appeare that the ordered to appear to be a tendence to the tendence of the second tendence of the tendence of the tendence of the tendence of tendence of the of tendence of the tendence of tendence of the of tendence of the tendence of tendence of tendence of the tendence of tendece of tendence of tendence of tendence of tendence of

User, were there included a decide bury and the thermitian of the second methods and all decident that in the second methods and all decident the second methods and all decided the second second second second second second s

Denoi Towing does the prefa cuper refer? Gel Mann There are two boad clusses of elementary particles formors and boasen formans obly the exclusion principle — two formors, cannot accury the same place af the same time Bossen lave to crowd into the melanet or service to cover into the





Langrasked in the centre of the room wass and ankies operating by sinver situacities charact to mospools. She was true harmen and was young and towly materialize the glearing almost ochar in penalphit compares hadrand enternalist. He sign were long and hadrand enternalist. He sign were long and the hor storowase talls the bosonals were still and were addressore. While both this of the will be libod based around sing their edges. The without in her bornes but could red and

A right bland the women who needs the too was of unabled terms since that neurisrol to colled levely, incluion wans pushred to allow even and and class completely A size carrier graw lear licher toon and once mail have blane black but was need sources. Bulky muscles had become metanoopes. Bulky muscles had become liablar with needs. In second was that ablaby with needs. In second was that and sources the second second second second second metanoopes.

The man used to ply an honest tradegurunning for the vanous nourgent hybrids of most of the Outer Noons. He was quite wealing from it. Now he was refered

The get was a high-priced calibody A deal with her broker was made a short time ago So tax, all had eone accordingly.

Hit held an lightstant. Gloving thanners dropptid like a hontetal of uptical fibers. Rotona droped from ther ends lo boards on the foor. The grits eyes withated vertcally, termaked by the boarding pertons. Ann maches Read: innaud arstmaked as the objective young its arc. Occure humed into rema offactory works. Shedded upsels danced like dut motes in a mandheam

Breath whistled from the cirl's nostrifs

The law touched reaked field (see which of two michael blacks, hermaliand Georg into: burned into the sile interacgold publics became embedded in except into an exception. Nearest bein sential exploring of two loss of the interact exploring of two loss of the interact exploring of two loss of the interaction where they solve and the interacpt of the thereaft in the interact of the part of the thereaft in the aphiliand become and space. Each time through little come tode excelled.

I vise barging across the nom on a couch "hough thit could not see me in koise! the attach transh reminitured right pay yees equiline note checking that is a start with the second second second table of the second second second second checks, colocing valueties the was not there. When the smilled, that second these knows with publication these houses and the house houses and the public the house houses and the public the house house houses and the houses and the house house houses and the houses and the house houses and the house houses and the house houses and the houses and the house house houses and the houses and the house house houses and the house house houses and the house house house house house house houses and the house house houses and the house hous

Though the calibody appeared humanshe was not real. She was an illusion

A ligment of thy imagination only knew all much as 1 let it A magician's image was conjuted for his pleasure and for the confusion of his audience. There were no anospecs around, both Hitt and I had made stark of that. Nather of us wanted witnesses to the rights activities It there were any a ring on my linger bloodcast a field that would confuse there persons

Risa discovered the wall safe behind a multihole. She glanced in my direction and amiled. I roddled

Hit spirint-two images One groot comtinued trading. The other worked over to the safe and places to pain on the sensing surface with estima true, a two of the Clever spicihousages most being and a start of spicihousages. They have been applied as the origination of the safe of the clever immory. The start here are the theory removes the start of the safe of the remove the start of the safe of the

By now the calibody was completely covered with onic the Every square continues of skin was alight with a vebwork of decaying protons. She did not scream or beg for mercy that made Hist funcies. Ho was even

 The callbody was covered with ionic fire Every centimeter of skin was alight with a webwork of decaying protons. She old not scream or beg for mercy during the ordeal ?

more brutal with his lashing.

Hit's sector was predictable His pay dropathology was quite conventional i enwed him that inverbed locuid be as sured my motives. But coalchit. My prechaid been constructed for the conventioned of the Corps What is on recollectores existed protom as isoscitated as chemis.

But II distributer more that it discrete the left tage at the offs where causes the alphase the who haves assimptions bases. Here is have that an uncomposed where the provide the transformer as hougher band where the Sprace manage of disk will desire the Sprace manage of disk will desire the Sprace manage and the sprace and the balance and the sprace of the sprace and the sprace as the sprace of the sprace the sprace of the sprace of the sprace the sprace of the sprace the sp

Even the gells appearer doath advine appease Mittle anger He stapped her across the taxes again and again. She did not inspond He stappected the was legting. He locked her He today tocked in this chains a aynchrony with the locks. The gelts table changed into another's maps and heads where only each another's maps and heads where only each actions are the specific and the state actions and the visage angered ms. I did not know why it should But I was tunious at Hit.

Protocol food the girls skin ombodding themselves in hirts toor. He observed and stoppaid kaking her. He look famed weh ond he He could not stand the pain. He problem is also also also also also also estimity But, even that dati not he her Neurons tomenibleed and sarp with phatem rate. Lift weak in the low means.

Before we lett, I sent one timal scene into Hits mind He hauled the calibody no the shower and out it into menagesible pieces which wate tod to the depoc unit.

His and i versisate i lock ter hand, and weakind out the door Hist Boods territed after as confused with pen. You within tes seeing must beperty three weak as locked water the kept azers executi from us. No mater We had beachinthis if Hustoud invoir report the robbers, he thought he had a marker to bring suspect to thmat Dan lacerus and it once the served test.

Sate in our own room, we made love

Bas lay baside merce a bad of workbake in the Nysa Salte of the Hoad Garymoot There were classion similar sates, each named after one of the ancest of y soles on Each. They terred a crystal duoceckigen app the hoats man page which rose two house of metrics from the force of Cheles Cheller to produce through hydrocalition make into other cold space.

But no online bit biological for male surved of many write one recording to characteristic write the record for the survey to the strength of the record of the strength of the strength of the characteristic strength of the strength of the survey to the strength of the st

My hand stroked along her spine

smoothing omme fur, she airched har back mithetten State sparked blue between ma vibrations in her throat ismoothing away the reas caught and held pvelight like shall leted arriber instead of her salver filaments onw from her scale, now ouvering like fuzz. would then be material for the mane of a

stradding my body with hands and knocs peet my lips. Funy breasts prested against my chest I closed my even We wandered parded the search His thought patiente want nowhere to be found inlow could he

Don't worry Bisa said in my thoughts Hat

No ast helms She laughed almost a repair in my ent /8 enzéan later Forget about

She settled down coupling them rocked mished with here our prychic surgionum expanded We liew its one over Chalce

Our takens plucked only the amber tibrils estry of a pathetic creature gavoring with tooht There was pray apiently for cheam

Tonght's hunt is linehed. Let's save prov

contracted to include only aur coupled bod yes. We made love as one body finally curvening with parasympathetic decharge. The climax could have come from one or both of us no metter if was perceived in unison

I weighed her eves roll back her tongue

cuckly live an mocent animal I was use guckly for me Her breathing slowed, became dasper and regular Soon her eyelds. negh She dreamed

I waited I could dream her dreams How wonderful they must be from what little she moving air and worm sunlight and the amelia of Earth As a certaic optical we could share 66 CMN

our thoughts but for some reason not our secrats are needed

Law, I feely cisted imagis rose in my ady at his mother's breast, only to open his mannegum with a rubber nipple protruding through the mesh ghost children around over a doil, outdoy hands tupped on plasho

Lucke with my ske after Protons danced about trying to put out the free Real woke also. She proved me down with her handsand began loang no with her longue With each rough sitche a little fire was excinoutbed She started with my face and You can stop now it was only a cheam

He'd been brave but stupid. He hadn't been wired no hardware his eves no burs in his ears. All his data wate stored in software A big mistake

Just a little longer She laughod / Mo Tro

Eventually she was familiad. We lay side by side. I chearred again of being alphatested." Land "A spool officer was doing if was Kaly I was never focued in the Corps. I dream about 17 Guilt over desorting?

That's the conventional interpretation

Why Kake

"Because you are alread of her

Taurocal Titoked at Pisa, "Tel me about your deams," Lasked

They in hard to describe 1 don't their two uncinitiad in nonverbal minds. There are mages-quite wad-and octors and

Do I over appear?"

Sometimes She laughed T pounce on you and eat you What do you say to first?

1 cuttes that's the best way to be eatern Do you over dream of Ostonial Kaly?" Kaly

the Corps. Now she was looking for us "My designs have forgotiven her

"I wish mine had"

She didn't answer

Eventually the room lightened with Garymede's attinual dawn With the studyers while But real t elways wated

Risa begin to purr

We had spent the day in our room making sleep of noctumal chaltures. Now it was night again Our time had come We shurned daviable even the actinual kind. Busion is harder to maintain in the light of day

Real was a vench-stud. Her recombinant DNA had been derived from several bio types cat dog, bird, meet, i enwed her di verse ancestry each species brought along in own racel memories. She had dreams could not imagine. I was an alchybrid, although my DNA was still entirely human, a My dreams were human dreams but no pleasant ones I cared too much for Pasa to want her to demonst the dream-little

own our real memories had been world out by psychesurgeons. We had been given synthesic parsiona to raplace cur own---just the essentials-and a childhood was not essential. As the as we could remember, we becan with conscription into the Corpe

I can't immember how many times Id asked the champieon officer who commanded us to tell me who I was and what I d done to dreame a tech in the Corps Kay always reluted laughing saying it was bet ter for morale that I not know

On you man wonder about who you were before? I asked Roa already knowing the arower But sometimes words are needed

How much do you remember?

She hestated No more than you A few tranments, a few had dreams. A few plepses of a place on Earth where I once must have leved i think I must have kelled sumetimes bothers me in chearns Not often now Usually my dreams are quite pleasant

You don't want to know more

cause I am no longer her and can never bo her attain / don't have to be sorry for what she chil I don't have to feel guilty for har other past with different ancestors / have departs of screen in the air proving in the moonlight, staking pray, making with up

brought chearts enough I have bellty in-

What do your cat genes toil you to do now? They make mo want to prow at most She windowsill across the room balancing her CONTINUED ON PROFILE M.

TIME TRAVELER

The ayes of the Voyage' and Pomer and the one of the area of the agestes of a and the acting accessible, control by jointring polyage and bin parternet will over officine the integro of a mornise user a maker barter of the first a 8 binn years age (advir). Don Jaye's these

As long as time travel is impossible, informed artistic speculations will be our eyes and ears

Lam such that the thread in as impossible as factor forw-oph titeral" says Dave. As known as the su ter intermed states of the thread of the second states and the secdent of the universe Mays the only backgrown in the univerteral thread of the second states and the second states that be writered as the victamic generation of the contraint second states and the second states and the second intermed state substances and the second states and the normal planet from a solar-powered state the second state is the second states and the second states and the second intermed state states and the second states and the planet states and the second states and the second states the second states and the











The idea, a loayitheace is very a fluman would have, "he pross out if het human lived in a Gerard O Neil-shite space ookary of the Juake he might view a liemene eolopse of the sun through a prism of condensation deuas (block). Mit). And if he time-

traveled 4 billion years into the part add surveyed the primave vaporinged Earth from the far side of the moon (at the presear mounted of amleor impact) his perspective of this spectracular event might well resemble the persing all right CO

If a person could travel backward in time 4 billion years and stand on the moon, what do you think he would see? REASON

Les como la distriactio your library pages

Who would have thought there to be so much passion in her? Three dates three revuel tudes some choners, a weak on the

dving. I said to her trying to be reasonable tive that would explain it that would ex-

"There the great are of our age "Don't

She sevent two binders this time and kicked one across the room. The humor imment to break. Pages spewed from a height retted uneverity on the foor live needed be clear-to be reseptiable I am a reason But I am afraid that at this moment I load.

A description of the events of the next hour he too painful altest truly fumping, but it can say that I was brought to realize the m per substantial truth of their which I had write the invader One truly does not know the running of the beast, the stations of all the one knows and not an instent being

that also quite painful Atlength Hound myself at the desk of my supervisor. It was an ensemptors appointment, but the agency makes it clear in the Caroor & Salary Plan manual Normal procedures may be overridden in case of sentus difficulty I was in serious ditiouity. One must never operate convertionally in our terrain not after what I hard close. What I had close 1 am alread that I was rather out of control Toobbed Ewrung abov he said. Are you sure that scane work

"I was when Heft"

not you anywhere. You are positive that



"Yes," I said sighing deeply heaving "Yes

Bod # www.upportrelished ust as outfly

her "I suad." She was very race at the begintel that I could led her throos. Maybe It was

"On yes indeed you did I would engage all of them like me on the job. he was masked His voice was without aftect it is a stuppi metake "he said. "but now you'll

You understand why these jobs must be

Ch. yes "I said. "I know that now

His eves were kincly but nonetheless cold Impenetrable even Something like the agancy prose itself "Yes." I said. "I understand that now and much also

You were neally quite stuped, and you will

The supprysion started at ms "The sob? he soul. That's the last thing: We wouldn't even ask your kie

The equation transver is merianization Its a little tocky but we've had worke You knew her tark well of course?

"Of course Fapept that I mesudged her

I's too late to think of thet. Draft a state-

Right here and now A credible suicide one that can be found with the corpse Don't around at Rualitien there's the note at hiss to

I can take cars of it' I said oratefully. means for the test time (but I could have do duced it earlier/) a way out "Yos, that

"It's Sunday" the supervisor seed. "and also I would prefer to play this very close I would notion to kneep it in the tarrely I would protein

Three are seven reasons and of them all to larve sestmony, to make a cifference

Jam som: Francine Had you bet under stood it creakl have been different Hed / but understood you might have been with me more privar The secret, the document stant re my his DO



of Julia linguage is the deful to interest George Criefl pophetically demonstrated the way that we think in 1984 it as example, George Criefl pophetically demonstrated methods by the state would are use to come method by the state would are use to come paratrick the successive granulated the paratrick the successive granulated the paratrick of one of the characters in the source successive therein and lower works and the range of corecounters shares as the another successive time.

Orwell dui not develop Newspook as a central taiture of his novel. The characters extorn use and the vocabulary is not onplored in detail. Still it clearly demonstrates that larguage not only reflects changes in the lowe build also creates them.

In a very differentioned The Enbacking, which any differentioned The Enbacking considerably bothor majoring that a new ranginger could estually build a new webly Monoore whereas Drawis Newspark competenope human feedbott. Watacrice conception of a synthetic language serves the oppoable function. It learnings the passaker from the proconceptore mocessitely haddlonal inguister structure.

The Entheduling deacrises three scool opcose chicken works have been reased in a trate language, a South America in the trate language, a South America in the obsets and all and using a south and able the members to transport means obtains. The mind scoreces of means (all which and all and the able of the able of the members to be able to the members to be able of the members the able of the

Utimately all these giscups overcome the imitations of what we normally consider possible Because language enables these groups to perceive their workfa deliverity. the realities they experience have laws that are very defeared from our own.

Epidemic programs is out of hermore in own makes the second second second second second makes second second second second tests in clocker processing the mean second research second second second second research is clock encoder in hermorial in the second second second second second integers in encoder. Interventing a large integers is even could be address and the integers is even to be physicity, econd about the back second second second second terrers to the could research the back of the dates, after all second with the back of the dates and the second second second terrers to the could research the back of the back of the dates and the second second second terrers to the second second second second second second terrers to the second second second second second second terrers to the second second second second second second terrers to the second second second second second second terrers to the second second second second second second terrers to the second second second second second second terrers to the second second second second second second terrers to the second terrers to the second sec



Befittingly Beefeater.

BEEFEATER GIN. The Crown Jewel of England.



Omn's grade predicts a century filled with space vacations, long lives --end lootball

BY OWEN DAVIES

Pol guestionnaire last Ocuber, we shought we know what to expect. The object of the poll was to pro-det whet future life--specially in the reas of love, work, and play-would be like. Since Orm's readers have that rves on the future, are knowledgoable If the Whigh is addited, oth of chartening of the Section 2014 of

hen we published Onvir's experts. Only on a lew occasions did soth-anniversary Debtec experts consider reader-supported

Crew reeders and experts generally agreed or questions concerning com-puter technology and robotics. For ov-ample When will most home have domestic robots? Nearly 40 parcent of readers expected mechanical servants by the year 2020, while one in four optical

will program wrate no manger in the second of the second o

people know what they went, household robots wil be adopted overnaht.

For less easy to anticipate were de-velopments for space. Given that most tion, we write surprised to find that their forecasts often trailed those of profes-

When we sounds vacation on the space shuttle? Only one sich of our readers thought such trips would be possible by the turn of the century But ding to G. Harry State, & former

PHOTOGRAPH BY AKUMA TAKEGAMI



all the marketing for NASA The cays THIs work suggests that tourism will be the bigpist of all space industries. All it takes is the decision to go ahead.

While about weightiess scorps²⁺ Ten to fiteen years. "Bene belows "Chances are theil will be scorpstrag like weier polo without the weier. By comparison marky all the readers priced the next orentry and almost 12 percent belowed that scorp sports would remain the shift of discission factor.

Interestingly only the most occurrentwise teaders doubted thet one popular occurs toport-baby making-accult initial the Lis occurs in as space. But again the majority of Omit hosecasters put the haspy event the off a child will be born in tapace by the year (300 or y) to percent put to the haspy event the off or y) to percent put to the haspy event the origin of the provided by the activity to the origin to the space of the second by the origin the provided by the activity to the origin with in the part occurrent incest-intest loops within the part occurrent incest-intest.

On other space questions retrinuate verad widely Whan will people with on Nars⁷ in our 1978 ppl, the metion date wis 1962. This time shared one in two applicited a Mars landing in this contrary, but 43 percent put the date between 2000 and 2020. Only 2 percent sets in would in were hispatin—the freed? The Verden 116 put very.

On this question though the colimate may be wrong Space ecuriter Carel Stoker who has chared two professional contentros on the subject estimates that the establishment of a permanent Mars bias at possible before the year 2020 but only fixe get stated whinin the need two years. NASA now prorect is Mars biase by 2005.

By comparison, establishing a moon taxe sounds day, Buil only 8 in 100 reades to percent to ear a Lane colony in this contury. NASA administrator James Beggs agrees The moon base constituency fe says initio small to ver government fanding INSA row treases a Luma Issee around 2010

When will we meet needs unlessed tamps from spece? One Come stadier in this period the next 35 space to buy period to unlike the twenty-speceric contury or later and 13 periods stadie in exclat inver happen. This compass a surgisse and in 1978-only 5 per cert, had no hope of meeting, intelligatie beings from space. The sports held het all occesses are couple vide.

Cur poil often many latter septemp peoples answers and note han hald data with the quastan of neering. E1 Many lettes serve of the UICs are selected, here sunsty. A file responder were surprisedy and any server server surprised would any full would built not to be hother active to be ordered home to be repleted software built would built not to be hother base down to be would be invesbling. The method were backally gente and well indexing. Built they loss would be invested. They to be would be investtion of the server to be any gent and well indexing. Built they loss would be investions. The method be based.

Some of the hardest questions to immerdest with issues in which ihuman alignments and not andhralogy would affect the future. Thus we do not know when somegate will the chain. open achiech icr be worshold lechnology when alepathy classes will become commore or when the superpowers will units to clastroy a correct full timaters the earth. Yet the answer to none mportant question proved unangueble. Score: most readers held will every win prover U.S. familian frantaal

Linepectricity, some hard seeted and learn before the determining of the set of the learn before the set of the set of the set of the same rased—they depend on human faclos. Note their half our reades such the hypers and configuration of the set of the the set of the set o

Borredicine in contrast seemed relatively asay to forecast in most cases maders and experts opinions matched Fully 45 percent of the readers believe will see the

> €Tourists will be able to vacation on the space shuttle within the next ten years, say the experts The marketing for it is done AV it needs is the go-shead ●

Inst of meastive and whooping cough white Bysain. For an apport opping we went to Dr. William Registion, polessor of medicine alth Medical Califorgian Virginia. A lother hand of PEER a nove-distant function for later parameters and the register of the soluting gardees are used, and the register of tables are well writing of medical fields, may applied biomedical for the register of tables are well and the register of tables are well also dispond on have have an open Will be dispond on have have an

Basians and experts also agree that cleaning will never replace traditional improduction that as to when clicing would be done opnions wand wide). You render in first bedreved a person would be clored by hey war 2020 3 persont more pointed the first two decades of the new century the wes markedly water than the 79% pail forcent then the contentius called for a clone in the lab Einthes.

Physicians put the date much further every bit. Regalison summed up their position Technically it could happen anytime some one really puts his mind to it i he says? "The reason would not be to duplicate some ego ist but to provide spare parts to repair the heart brain and other organs. I personally do not believe if will even happen The attecal problems are used too but.

How soor will we mplant an article/gene in the entrypy to phwet if will intelection in taar 1497 According to Dr. Regelson, who as hmmel studying were to word of wini repotoers arone such process should be autible in two to kny savs. Twi will not moke genetic engineering, he odds "Intelect" in well comes from werk on contail of the immune system. Reades opnions wined but intrel forecast allevidae

When will it be possible to regrow loss limbs and internal organ? Dr Robert O. Becker then with the Systexure New Thrist Versaria Asimitation Haspen 2004. The function first step nearly 15 years ago whon he found interpret which of an amputated Unleg. Other concept on any most the function concept on any most the function to provide the step of the step of they can replace home organs—about what reports peopled.

The coefficient increment of a charmatic conflict. When will alternatives to plastic surgery resolutil the human body without exception per? The more popular chooses full indo that had hait of the leventy-find confus rings would very be developed. There is no way to reintage a large mass of loah whout outting is. surger Begetson

Much surpraining were asweal benefacted by less constants that expendits animeted by less constants that expendits and expendits and the surpraining of the second second second expectately to 00 years? About fell our eaders packed the first 40 years of the eaders packed the first 40 years of the second to years? About fell our eaders packed the first 40 years of the eaders packed the first 40 years of the eaders of years and the second eaders of the second to the second model of the eaders of the second the eader of the second the years of the eaders of the eaders of the second the eader.

When well we be able to cure most forms of cence? Hell our neaders thought that would cence between the years 2000 and 2040 any 15 percent agreed with the seperts -wells this century. The build of will be curd business in ten years' one cencer speciality declared

When shout thispit to spixed karming? One reader in live agreed with the experts—betion the year 2000—but even they were too resultance. Drugs that each tode i karming and memory alwady west for example there is a potent memory and is hormonic called with represent news available to presended.

In all our second Delphic Poll products a dramatically different workl in the next aiveral decades. Those charges which will no val the sechnological uphereut of the early beeneeth century are likely to both amaze inducentale a large number of propile But frour poll is right. It solve to say Cenn readres worth the amaze the subcritical QQ



the people around them. 'This sense of conrectributes,' says Wood,' wins loyally. It will reverbenate throughout the organization, changing its shucture and lone and meking it more efficient and productive.

Is in these last two qualities that are most local to both the equilities of the area most measures. Wargaret Hering, of Serioret college Graduate School of Management and costubut of *The Management* Andreas are an area to the school of the advances and composition and exempts approach to bus the school of the school of the school and the school of the school of the school worker cooperation and school of the record worker cooperation and productives. Toget Hering "Over the next two parts more and more women will be put into management for use theorem."

According to Hering, there may be additernal banktes. If we go back to the atory and thirk of it in terms of a microgeneric taking and the terms of a microgeneric calor, "argues Hering," Walk we see in the grip responses is a sophisticated, conceptual approach to problem solving."

Not only has the gri, and presumably the female manager who uses this approach, a better chance of corning up with a solution acceptable to more people, she is more Hely to come up with a better solution simply by med to even principano:

Hereng believes the women's approach with harmfit drive Heigs is walk cappeally politios where regulation and concervings are day requirements. He idea of a "Gillgan women" is Clearationer Fernar, "Tenne is a women who understand who take a rid where the work is at "tape Hering. "She reakes it is before to comprove and day what the can than to be druit out because at be best on ensurgers with a tak."

Put enaugh of these kinds of semen mipositions of power—so ha hope goos—and pethods when his thread muchan wer will be leadened. Wernams style of metal nossoring has become a policide, mecasity for the preservation of the work? ... contends psychologits Datoly Auster, of Cambridge Hospital who is subjing the offects that the thread of nucleas war hap on cityle in

Not all women, however, are Girligan women. One has only to look all Branks power immeter Nargueet Textuhen to entaine that Honing calls Thatoher a called the nerve women who is so consider tand selfphotoher that their call material tangen of being a rathin world. The quare hole stage pathog more women mob power positione pathog more women mob power positione both in the world of pacilies and taxanism.

On the other end of the spectrum are the women who care about everyone but them selves. Those women says Gilligan, have will be leven that responsible cannot become with the self. These are the women who feel they can never do enough for their husbands feer children, or their busest.

Women have been sold this bill of goods that if they can be here as the cost of others they should be concurred with guil." says Homg Such an attack leads to lack lostif-space, and assertiveness onthe job limby also help explain wity women are more prome than men to be masochesic and lo saffer from such psychological deporties is depression.

L. B. interesting the servicing the development of very biolaincest source in the communication text can be reacted and the result of the service and t

That support had batter come early Gillgen had back that a gift onder ther homs, they become increasingly valentifie to traling a say "gift bagin to bodyne areas that bringing hade togen to bodyne areas that bringing hade over values to going to cause actuals. So they start walling and watching other people for class set to what there value actuals to the wall. By their modelering many gains have altandored that own any accounted —main CO.



FICTION

Does anybody know how to read between the ines. on the face of time?

O HOMO, O FEMINA, O TEMPORA

BY KATE WILHELM

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nal, and stood up, m-	tiond if before," Jub-	BIO DIDAGO UN
alizing belatedly that	son munified.	sound through the
to was still and han-	"Yeah. When the	kritchen to the same
gry and tired enough	leaves go, it changes.	room, where Mille
to measure that he had	doesn't if?"	covered with en al
not slopt for several	Judson storted to	ghan, was saling or
reality in a row.	ask what month it was,	the couch.
Dazed with laboury	but he bit the question	"Imhome," he sax
he left the loboratory.	back and said good	staring inclusive Sitra week
complete and the same that the	metha base man and based	acother than he of-

PAINTING BY BEN SCHONZEIT

1 ×80378

membered. Her har was turning from gold to a light beakin nicer this way and her eyes were bluer than he remembered larger and now at least member.

"Me too ' she said and turned back to the termision

"Hours everything?"

"Fino"

An you mad at me?"

The point of the second second

'Good God! What daughter?"

She sighed and about up. "Have you eallen anything these last few days? Have you sloo?

"I don't know i don't remember Mille youre kidding me aren't you?

"Im ladding. Scrambled eggs? Are you tinshed with the new theory? Is that why i'm visible again?

"Mille its I have to call the President

"Like Chicken Little?"

"But the sky is failwar!"

With or without cheese and amons? He followed her into the lotchan she took ha hand and ad him to a stool at the counter publied him down onto it. When she put a cheese or with holinos them he tastand it as the

wer had seen anything like it befor Timms slowing down Millei

TITLES SURVEY CONTENT

"I couldn't believe it at first. Twe checke

She boke another egg. There is no such thing as time. She oracked the faird egg

He based dawn at himself. That's why ho had been so cold. It's slowing down at an accelerating rate and thereis nothing will can do atoxit if.

She chired the eggs perity. There is an obstrad concept that an invertient on active to take about change and duathon." She added choose and conces to the eggs put butter in the delitet and watched until a stateved to succee, then added the eggs me, use Time, she such then "take no nonpercient exelection of sits own Change Cain happen later or allows, but then is no andhappen later or allows, but then is no andpercient exelection of sits own Change Cain happen later or allows, but then is no andwatched the cain change as wernalled watched the site of the site

And when it stows down anaugh " Judson said glumly it's going to stop altogether."

She put tread in the board and got out, gen We never little time is often black about seasons, physical change growing all, and type, The eggs were chose at the same arre the basit popped. It always arrears him that the knows the second-basiting hings look to put chose. She never even glanned at a clock when the cooked instructs he bacept unreasity it had nothing to do with real time.

She put the food before him "if there are as Own

no events, there is no time Tittle is inconconsible without events that change that evolves It decent event events as a figure of speech. Like time is of the estence. To special whet? Another figure of speech

"With the maniforms I if be able to predict exactly when it will slop the said, and be gain to exit

"Darting, just tail me one thing. Did you use the square icol of minus one to gift your exaulty?

He nodded his mouth too full to sp

She smiled broke off a prece of his toxis and nibbled if

"You shouldn't have waited up i he said saffly as soon as he could

"I sensed to I knew youd come home eventually turingly tood cold Beacts I can sleep in tomorow morning. Setunday you know No cliepser." She taught medieval Enclish literature

Of course | know

Which Saturday? he wondered. He glanoid over he shoulder at the calendar

Dazed with
 fatgue, he left the laboratory
 He stopped
 abrupily There was a bare
 tree breaking up
 the light from a corner
 streetlamp He
 heard footsteps and lumed.

and sam that October was displayed

The wenty-eighth' she said kindly. This is the westernd that we charge time. Do we set the clocks back or toward? I never remember

You don't have to make fun of mail he

She put her arms around him and keted his cheek. I love you, "she taid

Icy sairs came then snow and more cother warmer rain that aspheric all always Thetrees were exempted in a pails (procinitize that buried into a dense cancey costing green light golden and net light, and be came base inflat that broke up the pails its mestion closes the standard

"You's going to be bored. Judion said as he setted down next to Mile in the main audiopum of the conference center. Duk welfers a bore even to me

"Did you reely listen to me up there when were common the name?"

"You know I did You taked about epision and alpha and omicial and there were those mirrory sions have and there on the block-

board and then you multipled averything by the square root of minus one and the audience applauded You were absolutely microhoren?

The had good commonls already Theyre going over the figures with everything from hand outcatators to the memberns."

"I told you not to worry Of course they'll

Determines was introduced and started to between was introduced and started to reach the paper He was down numbers and symbols on the board as the failed He was in and speaker, obviously too namous devito glance at the audience. He preventation was too fast for Judgen to failee and do he numbers at the same time.

Judson fait a chill molway through and barred loward intentily. When Dukwaler had freshed Judson turnled to Mille. "Did you hear that? Do you reakzo what that idiot is daming?

It souncied a lot like your paper all those episions and alphas and omegas, and iherbe multipleci-

1 know what he di

"He thinks time is speeding up?"

"I can while his findnos

She picked up her knitting. "I think those men are coming to talk to you. I if wat here."

He is the rand well-of the man of the automam A ways of latenticies (unseed) more model basis in the denders made the immediate basis in the denders made to basis and the maximum and the latentic all waveful the activity and the margheting india up in the another that he margheting without the another activity the Activity and the activity and the average that the packet is more activity and the the task the activity the mark the packet is more activity and the activity the another that a such the margheting the activity the another activity the activity

Finally the groups began to depend it may acclude time. The gang at the pockurs and the way to the burn in a more its models. The other group tobased more its models, then audies fiscal timeat the locket of Mills calmly instring with a sight environ makes the sensure parts are with rest she do not makes the sensure parts or with rest she do not makes the sensure so of the time problem.

"Will we experience anything differently? into had asked

Balative to what?

We well' she had said. "Yere months will also asem like more months." And just like that also had demosed one of the griail motenes of the utivitate.

Suction 1 Mintombe drawled at his elbow "Well be sending you an invitation to speak down at Texas AdM Have to got to gather about the best time before all this brake se

Autom model Alifest work lay sheet of here more than one literime. He smiled at Whitcombe Heppy to come down "he side "If i can build the time" OO 6A malevalent race of aliens might use visiting species as pets or food

ANTIMATTER

The concept of the unity has been with up for mitted a day up for mitted of we up for mitted of end to the second of an executive of mental and the second of the second of the day the second of the second of the second of the of the second of the second of the second of the of the second of the second of the test of test

ing such messages in essence the cyber netic seed of human-

6)—bitcomis clear whom we examine the completely of tarries? The clear whom we examine the completely and tarries? The clear clear and the clear and the action energy force. These strips would prive the compotion of a ponetations. The passing on the part of the clear wave methods and the clear and they are display strip. When mediate display is the clear and they clear clear the part of the clear and the clear and they clear clear the clear and the clear and they clear clear the clear the clear clear and the clear and the clear clear the clear clear clear and the clear and the clear clear the clear clear clear and the clear clear the clear clear the clear clear clear clear and the clear clear clear the clear clear clear and the clear clear clear clear the clear the clear clear

But oven this advanced colony carries potentially tree instantiating sizes if can taccelerate beyond a fraction of the speed of light and could become hopelessly lost suffer a feetiling accelent along the way or fail to grow and thrive at its speeked destination.

The pypernitic-used approach, by contrast, avoids mod of these difficutios. The encoded information, sent by racio transmitters, would travel indefinitely and could not be do



There would be no need for advanced propulson evidence or propulson evidence or anomously explain ave spacecraft And our attimes would be alded by techniculy sophisticated elens who could negotate the difficulties ethend Any form of inter atelian flight could

pose problems X makevolat allo rado makevolat allo rado majó nacentruct vs. Ing species only a scenario pred them as pets or for fload. An exhatometer stratule accentral might altor the gonets structure of the opelang break in a scenario table, submittely pritable, submittely pritable, and costine war nots might market a

Become the dengers is the too lask to have form the status Curr Earth—warm, green and nch in oxygen—her, been wishle to alvanced scoutes for balance of years, Curr FLove Lucy threadcasts are already several light decades into the cosmos if we don't takene to a or those berraw well come to as

Rechnickly isofhietded of viazaons in fact may expention be beaming them sparits to them, four nois elescoppe, are currently solaring the heavens for massages from the stars. Once we receive heav to may closer molecular codes to this beings that such them is time we might be able to eccentruct these alone, essentiating themininalisty solars activities of her ears

Discovery of a cybernetic select could explain why arens have never been found. Partiags they're already nere hiscleri in the creats and troughs of a radio wave, beams of potentral warns to be anoared — 7. A. HEPPERHEMER



PERPETUAL-MOTION TRIAL

Extension a symbol fee soundlike quadersy if in the perturbut motion machine a device that supported produces more power than it consumes that support of ourperent would if it ready worked extre all our energy works between a non-speed lews of physics in the process.

Despise these facts though a Loc Angeles promotion y accurst to the menhicitized and the second second second and the second under the second second and second second second second y factor designed method Karl Alagets and altorning works of designed method Karl Alagets and altorning method by the movem of the second second second method by the second second method by the second method by the second provide second second method by the second provide second provide second second provide second second second provide second se

The jarors told me the

before in the information of the provided of t

According to Green the deputed machine is a compressed-an powered luttime hit furns a solt of priviheel For overy five horsepower you bave to put one humgreu have to put one humdied horsepower in

But Angener has a officent inspinishen "To purit basiscally he says it's a instandar mass that produces an accommode gais Mahanial held i'n the neer fourie he actiss he plans to demonplate he manimus invasionary properties at a press contineme.

refused to be interviewed

BIG DIVOT

A course of all Affensives to an adding up both that adding in a form of the adding up to the adding up to the intervention of the adding up to adding the pass called to the some announced that the peer announced that the peer announced that the peer adding to adding up to announced that the peer adding to adding the catagooide across 73 feet. They catagooide across 73 feet. They has they could in the system to help could not say they have adding system and the set sources and they could not say they have the set sources the hole sources the hole sources the hole sources the set sources

white and nearly, has bediant advand live. It has been cheated with a giant pocke substraint whether with goologies B. Unstrack Abose devoked from the web strate had been report from the phase. The the gool from his goold the the goold from his boot do buildown or any other early matching.

I was a cascilla soot and

gave me an early fooling Barback rays. This check cauld have been moved by a helicoptist or even a UFO--centantly don't have any optimited.

But geologist Grug Behrens of the US Burnau of Reidemation does A smaexisting safe occurred left Dotatier 9 mee cays balance Behrens expleme. The exist then occurred a shallhab below maps have occurred to the range have occurred to the earth's moderal forces mag. If will not be able to the cays and a source of the cardinates may field and converged at the dwoll and papered in stream will be

Brithoms However, admiss is theory of a gubbs at best AT we know for size he says is that this proce of earth moved severity three leat away from the hole came out of Enc Mohara

The highest purpose is to give no purpose 41 al? John Case



AUTI®MATTER



SPORT CALLS IN

When EVM Pressy due to August 15 Taro (Inn) for obtain industry must born large of any large that born large for my large to Eve that the Eve many for mury that by commencation beat booking. To extend that the problem to forecapture Evulu strates protection fans even downais registrations to the low-large protection fans even downais registrations to an order king at the going

1 webmin colls, wheel is in in on what hoppshood OMake server. The comments and maturationing and peter as I know mech in way good I is the most in photograph (we were taken).

The specific of even we had signs and/ensure Web revise appand/ensure Web revise apptoring eggin applications of the memory have no deal why his happened but paymics have old me had in applications with Exit and hist his well destination happen pages. Else Mistore

All or a suicitien i chol some hing i nhoultan Ihave aughad Anol i have one of hose very loud stage austes

A D Described

See is a playground for onely sceni st

NOMES ARE MUSEUM

Letters i divolate and accorden a divolatione applicatione mere a Dog your lago. Boat a Notal a divolate and Davia a microstrate and Davia a microstrate and Davia a divolatione a divolatione con a galan Charlassi from micro con again Charlassi from a microstrate and other and the transfer your and and t

Our evidence will devas-

And other space is enclose use been concern tracked is large cell starts and human how of models is growing any models is proving any been services and services of deploy will hastan an endiment concern any how the alment concern any h

Bough also clome to have vorwated a 17 toot tall dinosaur that dect in the det uge. White all provious dino

Artifrecologist Jassman Dahl of the Waka Hymao Dahl of the Waka Hymao Dahl of the Waka Hymao Neglet State (State State State) and State State State State (State) State State State (State) State States States

With pithoutry Loail to reality Re a dag land Loo how! Pablo Nervite

Paun engraves a deeper muttory





ANTIMATTER



NEW LANGUAGE

Dutring the Biosciere gold with this furthers, pacete from Franch Guarta made ther way could eventually astimg in the Amazon data only of Macapa Within Brazi era anthropological Juliefs an anthropological Juliefs and Andréa discoverad the group in 1979 the vice amazond op learn that they had developed a new provi opies windows intergase

De Andrede vice presedent of ins Stab Paula Fanktine Viseaum soon set out to study the geographic phage to othari a language inatined exoleted in fewerihan 30 years. The organial Finesch saudridig dates: Alte North had merided with both Panu geales and Explaint: resulting in Lone Paula, a language complete with a systax accepts and a systax accept has speared no literto one. Num, se victore adds, fis wither larguage — 6 5 000 people who speak und Palua write laters one another creaking a retwork that spens some 200 secure maks

These 25 000 people sho roles are unusual not only for their language but for the eccentre coordination has as well. For ecompany, their teach memory and hough they may are say friendly people. On farchance says, day are pushed by superstations of a method, expression contained

And when a family memoer bies De Anstrade points our the rest of the family op nores the water which is find by thends instead they optic bindee and play comnects for eight days straight. Sheny Baker

HIDDEN HOAX?

Early or 36/8 magazah innen 'Da krand in Bendi baloo) laandheet prassi opha. One of her met wedely opha one of her met wedely opha one of her met wedely opha one of her met wedely annoyochtogy alofte neers al Wash to ver or vis McDennel Laboratory b Psychiad Rassar

Mac Lab interestichers no accepting gatden variety conjuring as proof of psychic powers. The host des reyest the Mac Lab's work and

on: they protocols

Parcel has long-intend teal "map of adapts has never label networked. And in the prote contentions that thought a content is light, in introducts of the project basis was already under way Since then the has shop oppotan of a project genme. Map new hash - could never ideas the future hold for peak introductions and the project genme.

Sociologist Manade Tuzza director of the longer for Society of Anomalies Re society doubts that there will be say. The featione Reads the charges may have ridth ing up he stored

don (In rek amptools) toolly balevis that Banduis holding back any or logit 1 wiphs, he says: The servin about how he wants to evalupoor paragray/hologists any full her embanationment or wark all your to holdere

As for project beta, Truzz sonts out that Randi's delarption of it search + have thanged a bit since the Les annuancement All Itali time Planchauet and bats would tali 4 use pois success used potent contrals. But when parapaychologies sought the help in ruling can found the paranounced bats a success. It had contention the said of warmy to see whether time had lower the land of warmy to be whether time had lower themposes.

What we have to ask considues. Truzz comments s whether the original beta failed prompting Planck in make up a story to save face.

Ranck derives the charge Bata was a huge success for parapsychology the says was communication

That leaves gamma Truza famils II may have been the ignal beta, delayed a

 I so that whatever were ving would work lise! out

Again Rands damas it Not only does gamma crest, e says will reveal the radequarty of somethias we k. Just how ha is unwill ing to say unkligamma is over something i the nact we veraits. Owen Davies



NTERVIEW

CONTRACT/ROM NOT 55

samp goodlen style as with protoche in a liser protoche is appropriatory for the org active finite gamping strain for the style style of the gamping strain for the style strain strain

Get-Mans: These mathematical candidates are very beautifued same no which many differenen Lindo achiene in which many differenhaptions can cooper instructive very conscienting of one single superfield that has simple singleflowed properties. Screen olus date to hope that such a superflexory may ham can to be the utimate interception of matter (Set-Mann uses haption to maan. Tundemental holds To.

The best circledate because and the localed N 8 supersimply honly and the beona of supersimps in the dimensions 30pering respector 50-c dimensions 40noday adapted to 50-c dimensions 60-contraditional sectors with the bit at dimensions 60-contraditional sectors with the other into olded up mice a table ball at leaving pant in pergravity, we have generalized with a single supplication and the sectors of all the supplication of the other with a single supplication of the other with an other supplication of the other line with a single supplication of the other line with an other sub-site of perclines in the with need

Bupping feases which thrie are the root likely to seek, make an infinite numper of warrentiny objects, of which some times or hundress are supported to have tow masses. Those tow-mass elementary pathdes would reduce this graves interacting to hops, at the apparently elementary perforlos with which we may deal we electricity queries (hosting and also bert), and ther super rearrings.

Occer: Couldn't many of today a fundamental particles turn put to be tomorrow a com position?

Gel-Menn Yes to instance if guarka and electrons are composited then then fundmental constituents will appear in the let of hapters of the correct superunded theory, in place of the guarks and electrons them solved.

Onny. What are some other special features of supersmite theory?

Gel-Manni. Supersting theory seems to inique rare spegial dimensions instead of those glass the dimension of lime). The exits dimensions would not then be perceived as such buy would which the spectrum of the elementary paintides and the character of the municipal sectors.

coercology of the very early universe Oran/ Why is the word stand used?

GetHamin' The usait parties that theory points is field a one point is space. Hinc, instead of an infine runniber of bach helds, we can it will use is single held that is a function of a one-commonly path in space a strong Just be a point pathol and in the describer a work when is faux-demotional space hind is a faux-demoserial space hind is a faux-demotion of the second s

Oversi What's the difference between a world line and a world sheet?

Get-Mann Typo three cit in classed physas lating, a point targeting through space creates a time by estending one port abin arother. Exercising a simplification point section and any one string intrody's space cosmolability any one string intrody is space cosmolability and one string intrody is space to only in classical terms. When wowd in quantum mechanical terms, the poture spars to get a time targeting.

Corresponding to the deuteron is the antideuteron Corresponding to the speck of dust there is the speck of antidust. And corresponding to the frog, there is an antifrog ?

Once Why don't we trid much antimaties in the universe?

California The team any produces methods to be any team of the team any produces the team of team the simplest example of carshim united operation programs in model provide industry. Contentionarity, Salatians's does innoved from carship on the minimum of particle physical social significant or and control the cardinal on a gramments and cardinal cardinal cruster particle cardinal of the cardinal cruster particle cardinal to the cardinal industry and cardinal to the cardinal industry and cardinal industry and the cardinal cardinal is screening also the first the cardinal of grammentary and the target of the size of the cardinal cardinal of grammentary of the state of the screening and the cardinal cardinal screening and first and control and the screening state of the screening and the screening screening

Gene through the integration share the default of the second sec

Ceres Ap particle restorant investible? Get April II in restorant advanced in the particular advanced in the restorant advanced and reliant particle free particle. Also one can investore any particle free can also can be reproceed an institumized approximation of the relation to the the law particle from one particle and exercise the law part of the mathematical quarkity from one particle to a particle to born one particle to be other.

so per las to turn he perfect no 11 añparte las totun he perfect no 11 añempresaria y ante entre perfect no 11 añtempresaria y atolica ha index tota el carenterente a la compositiva de las estas entre entre ara servir perpetent en travalhem metra testa de las estas perfectas en la compositiva de las estas per becesar en a compositiva de las estas entre las antenantas ante distantes años en las estas las menerantas estas distantes ande las estas las antenantas estas distantes ande las estas las antenantas estas distantes años estas estas entres fortas en antenantas estas distantes ande las estas entres fortas estas estas estas estas estas estas estas entres fortas estas estas estas estas estas estas estas entres fortas estas estas estas estas estas estas estas estas fortas estas e

Crease Bo if these paracle reactions are reversable, how does this relate to test's supmotive metality to to beckweird? Gel-Mern: That's a difficult question. The meroscopio laws of particle physics alle necusiv charging left into right and particles world around us. We see the eoo turning into a scrambled egg, but we don't see the scrambled eag turning back into the eag

around twenty years ago, but I never pubconditions that applied in the beginning of world anymmetrical between past and fa giamentary particles to explain science but lion years ago when it was a tiny expending ra wether to work out how that cosmological law of thermodynamics and gives us univer-Orrer An your maphis always the result of

Gall-Mann it is of course cruciel to the crerecessary although wickly received Even when someone suggests on excellent now necessary and eveng. The punication of the notions is very important

tools penci and paper eriser cher and the wostebasket Amost every dea that ocsimplest grounds for being wrong have to to writ locacel reconsidences. Once the clear or theory is logically consistent, there is random of well-established observations. The ments and most theoretical ideas don't meet

Censy How did your collongues react initially

Gel-Mare: Virtually all of them thought that Ed cone bananas, in the fall of 1963 Lowled Have an idea how to explain all the patients one with a phase of plus two thirds and the 94 CMNI

other two with charges of minus one thed " He said "On come on Murray this is a transatistic call it's costing money Lefs not Orm/ Some people have described quarka

Gail-Maon: Lused to describe this theory of contined guarks modestly by saying that they sere ratherstical meaning amply that they usily built cident say that they were fectilized Many people miscock my meaning and the off that laws saying that i dide the even in the custrie, which is, of course not true clidin t event to get into an argument with pite brochers who would say. Well, I they can seal?" I even have a prescription otdening me not to arcue with philosophers. It was

6 in theoretical physics we use simple tools pencyl, paper, erasor, chair, and table. More important than these to the wastebaskot. Almost any idea that occurs to a physicist is wrong ?

such threas as the creation of art

Bell-Maren Quarks do not have priviting to the relation of my Eightfold Way to the Patchist Fightfold Way, have to be disa those people that it's all a toke if one saws. ferent matter. They are similar noble active

Overs' Because trese fundamental particles make up what we call matter shouldn't they be the same literus that make up matter if all as defining the second branch at the

Bell-Mann Of course but that connection is try configure bolicity bivchology and in a plien human society, say in terms of ele-

mentary paracles is a practically hopelass task. So we study the world at many different tween neighboring levels. One can in princade reduce social science to individual This means that one cannot draw any dract conclusions from elementary perticle physmisunderstood. They te not deachly related Some young women in Aspen. Ins mample "Oh you study energy Well you must know about the energy of human relationships. **Orever**. What is your feeling about areas that are often labeled matorial?

Goli-Mano. Three are a lot of mental procsonal thought processes. I think this is the woold strong part of human paychology scrus mental processes or the instonal rank to the Fey id and Arra were rether unecenof the imptonel aspect of human behavior

Orease is there an instituted factor within par-

Gel-Mann The science and irrational the scientists are Why do I not publish some thing until a year or a year and a half has paged? Why do I not see obvious things or bearun it in 29542 If I had it would have solved all our problems much sooner. There is a lot of imitionality in our work

Overy is frate no mationality within the makeup of matter?

Goll-Mare No The term instorative in any care is usually applied to serrient orea-Lie's straightforward and opherent there are no special interventions made by some kind

Gens If we find metonality in human char-

many name question? As I said, there are many barbass to cross between elementary perticles and human beings. Just because the turgiamental physical laws are simplepleators. Some of the most fascineting perts from simple elements or simple underlying laws Also, complexely itself seems to have Issues of its own

Onny You've said amplicity will be in the



economy of principle

Get Verin. Their was in particle largest mean fails have memory approaches function demonstrate that have an most approaches and the second second second second second over an infernational data as a supersiding frequent the aim of the fails are supersiding frequent the second second second second second in an experimentation of the second second in an experiment of the nation that where mey ben most in approximation and where mey ben most of a particle in order that where mey ben most of a particle in a second second the second second and others of the second second second second of these of the second second second of these of the second second second of these of the second second second second distance in the second second second second second distance in the second second second second second second distance in the second second

deli-Menni it could well be that werb basis ing Lo the weaps well hour present theones and that some binlikerly wantp anexon. No. An point alking the problem with weap and the second second second second second of all three exconceptions. If and allow contain way to see that where a group on the following. "Wantp thrones build before the second before and second second second second parts that second second second second parts that second second second second sections in second second second second sections in the second second second second sections in the second second second second sections in the second second second second second sections in the second second second second second sections in the second seco

When I way sparse, I han no punctular vestion memory in output data. For ourse, we receive in output on output data, for ourse, output receive the parabite searching we preserve methanism in the searching of the preserve methanism is a searching of the searching of adapting advances are not only the time space adapting advances are not only the space adapting advances are not only the space adapting advances and the space of the space adapting advances and there is intervent. If a yout precision and an used to provide the in it counting, for adapting intervent. If a yout precision and an used to provide the intervent on the space adapting addapting addapting intervent. If a yout precision adapting addapting addapting addapting addapting addapting addapting addapting addapting intervent is not one of the space addapting addapting addapting addapting intervent is not one of the space addapting addapting addapting addapting intervent is not one of the space addapting addapting addapting addapting intervent is not one of the space addapting addapting addapting addapting addapting intervent is not one of the space addapting addapti

Over Why does it seem that physicate can always get money to build an accelerator? Gelf Mann Shirhferhi Cartille angrees Actarily. The to think that there is screenbing about the character of our subject that apposits to dictator makers. Perhaps they some even if they dont understand it the basic position occupied by one werk OC



iSpeak Spanish like a diplomat!

What sert of people need to learn a foreign language as quarkly and effectively as possible? Seesing service persenset, their who Members of Amesola deploration corps are seesinged to U.S. erbossies stread, where they must be able to converse flexably in every solution.

Now you can leave to speek Speech put as these objectatic personnel dowith the Foreign Serves Instance Programmets Spanish Course You'l leave Unit American Spanish moorded by sether apparents.

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Auto Forar

n-The-Gree





the pleasure domes of Claikos Iau below. Stockscopic selflections wirked from her pupils Particularits quivered as they probed the psychic offer.

Overheat right deepaned I closed my eyes. Specters rose from hispocampal greed deatabase which hispocampal greed deatabase which hispocampal hispocadult highlen me now, not while I was audent highlen me now, not while I was audent deatabase and inghten cety states citizens. Terror cam only in the closens citizens areas cam only in the closens.

I snapped a mnamone stok and sucked ts vapors deep into my lungs Euphore burned in my mind

I got up and stood behind Pasa. She contruad to peer out he window, couching on all lows: Tassed the back of her logs mazing soft low with my log. I moved upweld rubbing my check sparse her rung. She remaned lense claudit up in hunt.

I knit bahnd his, oupping fur doered beaats in my hands and entered her Mocoset surfaces continend mean includion neurons than octanoous often ance they were no more than motified lactie receptor. Moopel conset, proclassif is bailt pathic getait. I say my head between her simulates more appendix.

Anyon theory in several through the utility lies within generality that selecting the transtess multicing sectors (the transition of the transition are the several to the transition of the transition of the several to the transition of the transition of the several to the transition of the transition of the several to the transition of the transition of the several to the several to the transition of the several to the several to the transition of the several to t

We tad been together for the youns tour in the Control Constant and Life Marcin Into Control Constant and Life Marcin Rest reality, what disposite from the Conswhen the Mattern Housian callupate and hand together to instant call and the Mattern callular control is out of Constant and Have microsoft the Constant and Have microsoft the Constant and Have microsoft the Constant and Have microsoft constant and Have micros Invest Books to trang is control down to anchecka tream There comeasugators gave you book your orginal appearance. How poembay But Retease and ny milliury the seawae meatly gray matter to the control like an ordinny spatient. It generates the seawae the animosci normal mane. Head to be like and ordinny spatient. The seawae the meets in time macanagery to damage challed synaption. Then a spot is a vega a the static synaption. Then a spot is a vega challed synaption. Then a spot is a vega challed synaption. Then a spot is a vega challed synaption.

 Protons danced on my body live St Elmo's live 1 thrashed, trying to put out the flams Risa plinned me down and began floking me with her tongue ?

Iterativeseptatin was that they also had incloadate control over their thoughts. When a spools assumed a cover, he organised harmind into this identify of the cover with a complete set of memores. He own project was builded to deep and linked to tarify with Inster nucle he would debefore any recomgraphic thoughts could give him array Even a path term could be bolded by a spool-

 cursed to have to remember all the fears mysel.

But Rese could seek out other feelings. And Liccuit create other it works header lear

His flanks began quivering benesiti me Something other then stanight gleannid in her easi We had logated our quarry. He was quee near and was unsuspecting. We could surprise him

We hunted gibbe to home torright

The door to our suite the typical, opened, into aumal Syon across which was a littable We stepped in and dropped slowly holding handle to keep from getting expanised Our play was shi in the room. We followed his objecting thoughts, entered his mind, and reastmind the manness.

Several floors down, we switched to the uptube, attrough no living eyes saw the Our magice still drifted down

Those same living eyes saw a child desized in a blue sam gown foceng up the other tube carrying a cat in its error. Only Rea and liknew otherwise

The chick alonged out of the Wube at the sole hundred of chyranith level, and me the level hundred of chyranith level, and me the opportunith Nyuan Suan Ib-mit chick sole wis fut apparent—souched a lenger to the sharuncater. A two secords lave the souch chicked open. The chick append through below the door closed. Rea and I alor enbered daring through as spaced in second treast by lenger space.

An Entroper more set in blue on the loco fracing the door. He stopped character is the wear only the lowerder tobes of his order the statues soil gleerned with out in a eyee those with there ever green the. Though the receives participation was an powerty, this more was participation was an every outer the binges Charch threachd most of the initialities against good of it Moher Earth. This more was delivering a fortune to one of these relations to initialities. Bits initialities way last torging this the transmoment

The child bowed low. The while cal leaps out of its arms and begain to provi about "You deare comfort tonght. Brother Monk?" It asked formally.

The monk nodded his head

The child loadhed is Ingers to oppose doubles: The gran injored in the pile at revised I sepped out piloting one hand on table and the other over its head with index farger pointed down indir span alkal loady. It assembla to be an ordinary human child of about ten years of spin a life long of legend somethic potential. It leasants more toop children, were spin the langer toop of the other were the pilotic build at the of legend something the pilotic build at the of legend something.

Ecompleted is spin and faced the mork, then acheniced closer stopping a few conimmeters from the marks actuated logo. It spread is knoce and thrust its peles out A any perie dangled there. Then pelins and sectors relaxed anyoliding into immature lensals generated ministers mound, undeveloper lights, not mentioned.

A tigment of my magination? Hardly An

years old or Ween its physiologic age would aways menan percubacioni. Pedenorphs for twenty years. After that they could buy out their contract and be brought back to money Most cidn't Most spent their enters have an earlier. Which crossile want it all the iono-the suicide rate was quite high

darled out to wist its lips. Ym I acceptable

"Date to "the monk answorld." Book

though he imagined the pedimorph did if to cleaust me Alter all my magnation was conting the magic is the monk's mind sion was necessary

Rea left and entered the bedroom Avalive of money way a sounded in molar when an alarm beem She plucked it from the fashing He did not notice. The peck now stood in front of him, with its ankles caught monks face was pressing into its grow

ing the value. She wated by the door

The morks hands cupped the padis stender buttocks. His Ingernals out deep

Suddenly I was anony Rage narrowed my

The packs hands encoded the marks marks eves builded his los turned blue. resist. This was sail all part of the Hugh

I should have mixed the spears in he neck now and released his diaphyoarn from da pasalvais. But my race was too strong

the monk. I wanted him dead. A rational is land in my mind was puzzled. I had never killed belone, even in the war Why new?

Anger burned even hotler. Now my lin cers did the rateworks I closed my eves

zied my cheek. Strong arms wrapped tesh A warm body pressed against mine

The monk's mind was almost dead. But two was arrently roleed of paric as unwound like a raveling tapeatry-scimos of were combreds porce this bable poerist a dozen different kinds of hybrids as seen 100 (0.01

through rebei eves making love to a down drivent knot of partners then cuting each of sentres looking the other way lealwing

extinguishing the flame Lopened my syste

glied him 1 let go His head slumped foracht by his keus posture. Dreams unraveled pointment Realrelated her embrace Sho picked up the value and started ipward the a melting image ingered to distuib me a

I stumbled out the door after Risa

When the monk recovariad the would not report the theft of his money-that would de

GRisa was an empath-she peeped minds what primal terrors lurked in they dream-time I was the telepath who sent those lears back to the cerebral cortex ?

ity to locate a certain pedmorph himself. His not exist except in memory.

I sat near the wridow starring out of the over to join mel rubbing against my side bed. She cambed on top and began undu ioverglang I blanked my mind concentral-

Later as I held Risa close to me insubled

The memorys were a little savance for a relations person. He peaks to have had an probe Her thoughts resonated 1 louched her crets Riturals Memories I would have to Fill

giar and a gazzanner it s to be expected he

I trusted her ability There was something

Her thoughts were adent

Why did I get angry? Nou know don't you? She wated before answering JArone

She was not guite convincing

Put what could I do? I couldn't see informy as it closes trouter

She sought me again, as though in proof

Demons treated my deem-time

muscle Patteeth reped flesh proverg my toosts swey Soakes subsed around my langed faces welched me testing my fear with clower toncures. Brits also worned about had dimbed higher and higher until lacood about my rands. For some reason, 1 did not had fact I was shi pathyzed. The water sose-over my mouth, over my nose, then camenty was Theid my brooth until t seemed my longs would burst I could hold it no cassond for air water filled my luncs instead mouth and fibeled away

A radioactive doll clowed in the darkness

sat up in bed beside me, hold no her head

Twas sending She noclided You've given me guile a headacte Most of the other hotel grants

"Then yorks will start shooping around

voice. 'We have time for one mana

You She looks you cheerding shat your Noe Well sting her toreaht

Of example live searched all of Challes

Sands 🛛 Kahana

The Best of Both Worlds... the Value of a Condo...the Services of a Hotel.

- Color cable TV with free HBO
 Conclerent services



No one is suspicious yet I can't result this one You'll entry if Shesp desafed veteran

I lay back and closed my eyes Yes this next stang would be ensymble. We veterans were given back their pasts. That was the kw Snoel was an outlaw I dept have my cest Rut I shi hed the news hape that ! backprounds of other combet hybrids that would enable me to public my can

hippoparripel tomb

Garwenerias ortificati day had taded. The reality of right returned. Riss strad belote white-hot plasma spewing from the fusion fourtain of a night club perched below us on the ren of Challes crafter

We strolled the streets of Chalisa. Fina and I Familiaments recorded our passage, the captured images would show only a kue tumeleons to fool cameras. Not so software The hand over that new up say two men chard spines on shore lower. We were had Two stations were even less likely to be rehuman We appeared to be quite ordinary swipes two meters tall naked save our copper gers toes noses and ears alon as black as obeclan and shiring with protoclive monomer, supple fingers and toes equipped with branks privated our eves other schindlers by subcutaneous cyberwites. Two common

I was pleased with my attention to detail

on the Outer Moone pepilde parkers simp-Pademonohis leared at us from open doordeclined. I concested the revision I fait

above the orster floor is permaptientic domain covered the weeckage of an ancient fuship clear energy was supplianted by sediacrive clear fourtain that threw bright lendels a mohtolub called Critical Mass



"You think all something? It was your idea to zip back a few million centuries and wipe out the monopula at its source

Tranchi's cuerry avecage up there

our capes. I strated at this touch of realism She strowed us to a table A traccourse its conter by the thruster charries. Tables, facets to pair! in midlar over the damps from

Real smiled To other even a autor a terr curied upward Torray event furred los soo

Lata dance. She lowbed my hand with

wild abandon. Yet we were also proceful and elegant and we made league peouethis that

When we refurred to our table, someone was waiting there. Her face was obscured

No politer at all ' Risa grapped

I say her clearly now. She was almost a good pb. There were a few trw scars ters had been removad. Hardly noticeable unless you knew where to look. I knew thata wate had been salvaged but they used conceeled by her gown Full breasts pushed lace of singing peaks tested on them. Here

If you know my name, then you know my story as well. You know what I want you to tell me. She smithed A water activati with a



vase of mnamone tubes and a glass of Earth sure 'I took the liberty of ordering for us 1 hope i got it noht. "She reached for the plass and shoed its work tolling the low data and her mouth with her tongue

Pass and I anapped coan mnemore takes

I want you to tell me about the blue empty. The Lady said. 'If that wouldn't be She drank down the wine mone long guip A dop ran down her chin "My yacht is moored at the spacepart " She smiled slavy it a important to be comfortable when felling

Inockled Telling stories of the blue empty to purchase our favore. But the Ledy a schemes went beyond the usual I could

Three bodies sprawled on a wombskin Lady Johan and her two new salors. All were relead. Two salighs lay on their backs, head a small valibetween thumb and forefinder incluse increase with a traveland has even. Blue pictule fowed across his corres. She reposted the ritual with the other eve. Then with the other safet. The vial contained a metare of endoceine and endrogen-speed tide hency slowly built. Firsh slapped adants tied out of noelnils. Low movins escaped clenched texts

Bea tested plucience the vector-a racy, a few mediocre jewels a little cashtwo uninteresting objets diart. But that was all right. I was more interested in the mind of

niri families on Earth, amusing herself with the usual diversions. While under the influ her lover with another. In a fit of leabusy lover lover) she grabbed an antique sword from the wall and decapitated them both Their She had become a cyttee While in the Corps, she found another lover-a salor of her stuel. The Lady had a unique perwroon She had set her sho's computer to a preprogrammed time. That time was notif. now IDI course Real reset the computer so reading has pertain advantages)

We were mady to know so we pulled on over our heads. We entered the airlock and the varies. So lifet the hatch blow in my magban at two hundred below. The seriors regarcy saving lit while the other clacad his too over the Lady's mouth and nose. Their breadhs. The salion had oxygen stored within brown adipose-a little diffused back into his lungs and his exheled breath-enough

catalyzed owcen. The inner door remained regied the cabin warm and pressuized Except in the Lady's mind

She sank into a pseudotwpowo come

I was peralyzed Ret teetb ninned flesh Snakes sithered around my neck, tightening their coils while fanoad faces watched me, tasting my fear with cloven tongues

Reward the enter door a mind tapesity reveled images unwound from the labors of memory. The Larly observa her endless ritupl, seeking something lost to the blue emptyto fice instead of staring to help him science of wer associate of moses of a sword flashing an aro through the air biting through muscle and cartiage with blood spuring high Than I saw another pattern hidden is terrible arc, a doil strancles a reked mork strands held by a locked weave whose part tern was amonohous gray. But I had seen

I willed her heart to stop and her lungs to cease breathing. My thoughts couldn't peneinste her besal gangka. Those parts of her brain were protected. I med to open the mner door, to let in real vacuum, but it was programmed order in her ship's concere She was sale from me. All I could do wers buy a little time. I depolarized a low more

conscious for a little while longer

previous masks had part of their memories the same person, the same Lady She was no ordinary wate Varia could not change But she had made a metake She had

blown her cover. We knew who also was now

cape I look her hand, and we ran through mediare arou

holden. We were ready to go A gravathip soled in thity mitube-we had already

A beimech picked up our bacqage Risa prowied back and forth in front of the cloot Hunor Notell Her voice was an incentent turns." One services: "this recent lange as of renow." seamed to have no ambition left. I was un-Memores of disarra kopt dancing in ma head skyle with volow teeth clicking, bots demons howing with glass. They ware my dreams, chropsed in the Lady's raveling unternitientables. I knew what was wrong

"We can wat no longer" Fiss came own to tup allow arm. With her louch Lico sensed the Lady asking Disam framerics unraveled, weaving back into memory, a million

I know what was wrong The creams wriding ware my own. The Lady shared my creams, knew my nothingres. There was only one way first was presable

i pulled free of her touch "I can't leave." I and "She knows who I am"

"We clot I have ame

'Tel me'

"I can the the one. You would have me too

Then fill wait for the Lady. She make be

Reashand flashed out, slashing me wer. She turned and ran out the door

A doll's face lensed of the where she had been with eyes that could not cry

one of its facets. A gravatup sose out of had worked together for five years. You couldn't be a pain from without an encoult hed lost my eyes and ears, my taste touch and smell But that was a loss mmediate

The Mysteries of Mind



THE TWO WORLDS WELIVE IN

spectrum of energy of which all creation consists The universe is you because you

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Scribe KA2 ROSELEDCEAN ORDER AMORE Address ----he ROSICRUCIANS

She laughed again If I hadn't somethie moth to a candle. You should have been more Where a your little pet? I chant like the nesty

"Tell mo fest " I said

"Cleary What do you want to know?

empaths I cupht to know I was once a cres with latent empathic abilities doos cats

enough Applogencally And it had to be cettic ranacies-habita il you wil Tole-

Which with?

were physiologically paralyzed. Then it was

I vessived millions of triv brains floeting semult? Lasked What kind of cheerrs?

mersily stimulated the right limbic nucles. The

That a why you were pecked it was reason

What do you mean? I subdanly left conlused. "What's so special about me"

Don't tril me you beare your own one rade? A magazan looled by his own tricks? Was it that traumatic? Was I that bed?

What about the? Why was i sentenced to the Foreign Legions? Why were my memo-

"Nou lateral a men." she prowered simply clearned with more than icyclicity

She lauched weikedly. You broke the most secred covenant of your guild. No punishalready told you we had to make do with oathic. We needed brains that ocuidn't ma-

remodeled, as though wome with white ains beneath the sign. Her honosi curre ridges around nose and eyes II bacama a

But the change was complete A child low har Not a child, either A pedimorph

What you a being must be?

A hand intercepted a later blant switch

on anote my my hody. She settind 1

she lorced out before het larvix was builded. The head skimped back, flaced with paratyses Diool ran between cyanotic knot had wanted to hurt me and had used an alphalwh on me I heled the light I couldn't stand # any longer, so I had hurt him instead It had been worth it then it would be worth d now Then I remembered another right with ligh then trying to hurt me enough that I 19 CMNI

mind became psycholic insided, not wenting to kill again. I created a datusion for my

calming Strong lengers tugged at mine pulling them away one by one Lips kested

Laknost laked the spook. She is Kelv

Locald see the pattern in the spook's reveing mind tapestry. The gurrunner, the monk and Lady Johan had all been real powers. She had really lost her lover twoell never allowing other true visage or nervorial children. Irightened to hysteria by the demone mages cangel by wres to their brains

6Her finder now slowly trahtened against the stud. Her eyes stared at the pun's muzzle, waiting for a quantum of light to flash crisp hole in her forehead 9

Three were I fiprocled hippoprampal of av

with populases. Neurotransmitters were

The chameleon would remember nothing

love Jupiter dwindled astern its moons no moons. We would catch up to our bigginge

a mind tapestry raveled. I saw a strange melding of imagery as though sean through on the run liber during the star I saw my delusion of my appearance of the illusion I protected to others. Then new dreams unphalash, all ending in the same stranging 1 saw mysell sold to a chiel broker so the falls ents Howed them all again. Horgave them trohim Literarribred multif again

Laughter Warm and pleasant Of course

The don't mind about me? What J am?

Mena launitar. We ve bears inconted in cesher Hove you as part of misself. The way

I was alreed you would ward to change it

Another resignition shuck Than you know

edges of my mind / do have more than

Pears mind was guarded, she kept her faalings holden

(kssed her She knew what that meant wine used as line no matter in whose neurons

I sai high above the ground on outopen throats longues top warm blood My mate runs beeste me proud Dreams urwend





PHENOMENA



By Soct Morns

Servers years lags in young Unitality of the last the time and decided to spend 4 paint up have a particularly hand bag and be back to invest with a problem that last the Same presence with the antital sharepart of the problem a well investing by cuting up. The problem a well investing and involves some papers quite difficult to see handle and fail

Nost paper has a preferred direction of our and ergons who has loaded a phose copy machine knows that the paper has to do in with its curl a certain way.

Before than current the pockation: Kowaldexercit advacidation (automotion) and a state of the metry advacer and any plaqued to the final curring up on day degree and permittig action and regulation of the state of the curring up on day degree and permittig action while they were assort a curring with any and curring action is what werps your weaponed ones metry werps to posterior and curring the movement. Knowledwide any mail to move the currier for any current for the current of the any current for the current of the any current for the current of the any current of the state bottom content on any current on any current

The problem was to put paper in a soling where humdhy wined commovaly the solution was as simple as identifying in label membrane over a pain of hot wild? Kowachevich brain that if he disposed small picoss of peper on the cloth they suddenly "came silva," withing and burning like animated two-dimensional beings.

In 1976 Reventing an entite Table and accounty a method to disclose contrating everything term paper to executive and the second second second second of the transfersion operation of the second second of the transfersion operation of the second second second second second second second second with paper of the experiment instreme, a for patient the second secon anywhere outside his own book-pisckaga, the complete instructions for making paper come alive

RY IT YOURSELF

You will need some holl water a cleep container such as a soup bowl or cothes cup a semptementalism moniformer such as a nanckurschief or a piece of polyester fathing and some very tim paper (once like would work well) that you hins out into small The beeng and burning continues will be able to page gals to well to move or the water gals to call to valorize quickly Kowashwell has hope on the discovery beyond its value as a search to caratility containing provide to an enterna of table containing provide to an enterna of table containing provide to an enterna of table page of the search and the search and containing the other tables containing the search and tables to be an enterna of tables page to be ables to be an enterna of tables to be ables to be an enterna of tables tables to be ables to be an enterna of tables to be and the search and tables the tables to be ables to



shapes—triangles circles and king parall leterates for example

Put some hot (but not boling) were in the container Strach the ident over the emthe of the solution of paces of paper on top. They will substrate "over the " twelfing sublimiting, were thange over with calleble unclusteries. As the paper increasion ward, the other so fine paper subser the model.

What is going on here? As the water vepor corrections of the place, which is possible to bettern wise of the place, which expands example, to the top sole, and the paper curte up. The exposes the mode place faultable to the air such a node add, ches out and curte the other way. As opposes eaters of the paper lever participant and driving off cycle, as it ascends into the atmosphine

The option be an upger relative invention is Assaming they not in Eight was completed --atter 15 years of work and talloats of delaters general --dicatased the NMs to separad into a take so largo that an enormous amount of water was loar to invapitiation Are a result, and y four of the damins an furtheres were prevened, and only half of the load out the exercised invariation.

Might thats be a way to harness this power—b stretch huge powers over thoses of water, on thorsau miterials on top, and censer the resulting motion into energy? The dearmay seem in in mposible dearm, but strety is in o more tartisched than some other proposals we have hered for alternate onegory sources in the maattime, making paper come alwe is a remorkable new demonstration of kochan magic that you can perform anytime with just paper a the cloth, and hot water.

THE TRICK THAT NEVER WAS

Another brand-new bit of magic, the boomerang band was a 'hontrick' for more than ten years

The Indian logal teck is the most barrocs remove in marge. It starts when a technic logal citrice into the er and a small baseline citrice the repet to the top and despress. It has been doorshop many times but never findhand. No requisitio dosrive has ever seen it has welf to back doesn't need and margements is that the tock doesn't need and never file.

In the boomering band, a megician shoots an ubber band off his linger and the nubber band lands on the floor and sola back to him. This nantholk started as a practical pike on Da Vennon, who is recograted as the claim of American molecular.

III SMT 3 (Stab) of Imagications in Southern and SMT 3 (Stab) of Imagications in Southern Arrange home series (Frank Caroos, Tarry Arrange home series (Frank Caroos, Tarry Arrange home series). La the Private series has was called a watch is denoted in Tyras by mgR 2 is prevailed. La the Private series has was called a watch is denoted in Tyras has been appreciated from the Private week and La Sangerbard from the Private week and La Sangerbard (Sangerbard). The series with them performed and the specitions with any performance of the series of the performance of the series of the series of the performance of the series of the series of the performance of the series of the series of the performance of the series of the series of the performance of the series of the series of the performance of the series of the series of the performance of the series of the series of the performance of the series of the series of the performance of the series of the series of the performance of the series of the series of the performance of the series of the series of the performance of the series of the series of the performance of the series of the performance of the series of the series of the series of the performance of the series of the series of the series of the performance of the series of the series of the series of the performance of the series of the series of the series of the performance of the series of t

When the magicians seturned to Los Angeles they ignored Vernon and would also taking when he came around Finally when Vernon applicated for net icruino them, they explained that they weren't mudbot were just acry her had missed seeing acres of the could includely tests they had ever withesed. They told her about the bartonice who could the the cards and they produced the Patiense putures to power it. We told Venom the the interview network to be Venom the the interview network Jose Visional: Genom bid us. That framilies as a log Schroub tid.

What Verson asked what Vergaals most astounding trick waa. Garo a and his



onhords said him that the man shot a rubber band to the floor and this the band stood up and rolled back to his feat

His was the story that Vemon board hardes to bolking, so it was the one the mappaies reposed the most class. For many values the boomesang board had lead only in legend—a nontrick that was taked with might board the store taked to one up Several mappaies had hed to one up with methods to make the take work but hork was suppopt.

Enter Wichael Weber a twenty-freeyear-dd magroan who is rapidly gaining a roouration as a cryeter of brand new magroal offects. In one he benrows a samond ang from a woman in his sudence and the ring mystemacity despections. His appliqueste This peckulos is veiled Caralies Jack bor: The working caralis is there out the savid paper envelope, and finds that the Taylor that we have respect particular ring in another thick. Weber takes a charada begute and spaceous in binware his hands, producing statem and glowing criteria. Whe opens has haved, the charada face been timestomed into a service with the comparison of the a

In the mot Seventos, Waber applied his, creative mind to the legendary boomsarp bond took and by 165 the bas come up with a way to do it. He has given us permission to calculate the method to Orivo readers, and it is revealed here for the fast time anywhere cussed of pervias minimiser pin and any to mappions.

FINALLY, THE SECRET

First, you must get a rubber band that is numb-ind oblog—when it issues a last auftice. The stoge with make is to bother Position your right hand so that he position divide inget point right in apposite divideors, and stretch the rubber and between think it helps to hock the small under the thumbhall and ringersat the stop is alrower at the left.

Policity just have so that is were all the board of persons been on the buy of the board with your right nodes frager as soles. This notations the distance the top of this board must three! between the three and three the persons of the board three and three the persons of the board the order three is then and of the state the order three is then and of the state the order three is then and of the state the order three is the state and of the state the order three is the state and of the state the order three is board the band must be of the backward. When the band is not the top of the Stategard with the state on the and to your first. Should the band on the avel to state the state of the band on the avel

Be foreverred that the tinds wind early a bleak at kind precision that use opposition to list enangle times before you heatly gets only the tained linke steading straight up only the tained linke steading straight up ind down-link a wheat or a thrown Hub-Hoppo-and not horizontally. A stey rate we can work that the trick does work and the the boometing band is a legend and netristion on one DO



LAST WORD

By Michael Ferria

 Boran is the head of MASA, the Mational Arbitral Stupidity Association, ind to be confused with these space people." be is guode to point and Despaces existence information of the second state states of the second states and the second states of the https://www.second.com/second states/second/second/second/second/second states/second/second/second/second/second second/second/second/second/second/second second/second/second/second/second/second second/second/second/second/second/second/second second/second/second/second/second/second/second second/seco

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cpressings—insign that was obligated in them and alien to convertionally programmat completers. My goal is to garantimit program that can accurately provide the full variety of numeric indication."

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Michael Pierro is political guest fundance writer to California working on the less accountship