EDUDOC SERVICES

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OCTOBER- 2018

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National Council of Educational Research and Training

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Introduction

"**Current Contents**" prepared by Library and Documentation Division aims to identify the articles published in the learned journals received by the library in the month of October, 2018.

Current Contents are arranged alphabetically under the broad subject headings. It gives the details about the name of the Journal, volume, issue month and year of publication. It will be our endeavour to bring out this as a reference tool, which will make our readers aware about the current contents available in different learned journals of their subject of interest.

Current Contents will be useful to our faculty members in selecting/recommending relevant articles for their research.

Keeping in mind the integration of ICT and Digitisation, attempt has been made to provide the Web-link of the current issues, which will facilitate the readers to access the articles, except the '*' marked journal titles

We eagerly await to received your views and comments.

(Prof. Saroj Yadav)
Chairperson, LDD,
NCERT, New Delhi.

Sr. No.	Name of Journals	Vol.	Issue	Month	Year	Pages
	Biology					
1.	Biochemistry and Molecular Biology Education	46	4	Jul-Aug	2018	11-12
	Economics					
2.	Economist	428	9111 9112 9113 9114 9115	29 Sep 06 Oct 13 Oct 20 Oct 27 Oct	2018	37-46
3.	Economic and Political weekly	53	38 39 40 41 42	22 Sep 29 Sep 06 Oct 13 Oct 20 Oct	2018	32-36
4.	The Indian Economic and Social History Review	55	3	Jul-Sep	2018	61-62
	Education					
5.	शिक्षा विमर्श	20	3	May-Jun	2018	131
6.	Bhartiya Adhunik Shiksha	38	1	Jul	2017	09--10
7.	Cambridge Journal of Education	48	5	Dec	2018	13
8.	International Journal of Inclusive Education	22	9-10	Sep- Oct	2018	64
9.	Journal of Educational Measurement	55	3	Fall	2018	76-77
	Educational Psychology					
10.	Educational Psychologist	53	3	Jul-Sep	2018	47
11.	Educational Psychology in Practice	34	3	Sep	2018	48
12.	Journal of Educational Psychology	110	7	Oct	2018	78-79
	Educational Research					
13.	American Educational Research Journal	55	4	Aug	2018	4
14.	Educational Research	60	3	Dec	2018	49
15.	Harvard Educational Review	88	3	Fall	2018	57-58
16.	Indian Educational Review	55	1	Jan	2017	63
17.	Review of Educational Research	88	4	Aug	2018	114
18.	Scandinavian Journal of Educational Research	62	5 6	Oct Dec	2018	115-116
	Educational Technology					
19.	Computers and Education	126		Nov	2018	18-19
20.	Journal of Computer Assisted Learning	34	5	Oct	2018	69

	Environmental Education					
21.	Down To Earth	27	11	16-31 Oct	2018	30-31
22.	International Research in Geographical and Environmental Education	27	3	Aug	2018	65
23.	Resurgence & Ecologist		309 310	Jul-Aug Sep- Oct	2018	110-113
	Geography					
24.	The Geographical Journal	184	3	Sep	2018	56
25.	National Geographic Magazine	6	3	Oct	2018	96
	Higher Education					
26.	University News	56	35 39 40 41 43	27 Aug 24 Sep 01 Oct 08 Oct 22 Oct	2018	139-143
	Library Science					
27.	IASLIC Bulletin	63	1	Mar	2018	59-60
28.	Library Herald : Journal of the Delhi Library Association	56	3	Sep	2018	85
29.	SRELS Journal of Information Management	55	3	Jun	2018	133
	Linguistics					
30.	ELT Journal	72	3	Jul	2018	52-53
31.	English Teaching Professional		117	Jul	2018	54-55
32.	Language Learning	68	3	Sep	2018	83-84
33.	अक्षर पर्व	23	3	Aug	2018	2--3
	Mathematics Education					
34.	Journal of Mathematics Teacher Education	21	4 5	Aug Sep	2018	81-82
35.	Mathematics Teacher	112	2	Oct	2018	91-92
36.	Mathematics Teaching		263	Sep	2018	93
37.	Mathematics Teaching in the Middle School	24	1	Sep	2018	94-95
38.	Teaching Children Mathematics	25	1	Sep	2018	136-137
39.	ZDM Mathematics Education	50	5	Sep	2018	145
	Physics					
40.	American Journal of Physics	86	9	Sep	2018	05-06
41.	Contemporary Physics	59	3	Sep	2018	22
42.	Physics Education	53	5	Sep	2018	102-103
43.	Physics Today	71	9	Sep	2018	104-106

	Psychology					
44.	American Psychologist	73	6	Sep	2018	07-08
45.	Cognitive Psychology	105 106	-	Sep Nov	2018	16-17
46.	Contemporary Educational Psychology	54	-	Jul	2018	20-21
47.	Counselor Education & Supervision	57	3	Sep	2018	23
48.	Journal of Applied Social Psychology	48	7 8	Jul Aug	2018	67-68
49.	Journal of Counseling & Development	96	4	Oct	2018	70-71
50.	Journal of Counseling Psychology	65	5	Oct	2018	72-74
51.	Journal of Cross-Cultural Psychology	49	7	Aug	2018	75
52.	Psychological Bulletin	144	10	Oct	2018	108
	Science					
53.	Current Science	115	6 7	25 Sep 10 Oct	2018	24-29
54.	New Scientist	239	3192 3193 3195 3196 3197	25 Aug 01 Sep 15 Sep 22 Sep 29 Sep	2018	97-101
55.	Science	361	6406 6407 6408 6409 6410	07 Sep 14 Sep 21 Sep 28 Sep 05 Oct	2018	117-126
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	Teacher Education					
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66.	Teaching and Teacher Education: An International Journal of Research and studies	75		Oct	2016	134-135
	Values Education					
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12/9/18
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साहित्यिक-वैचारिक मासिक

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संपादक

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रूप सज्जा
किशोर सिंह

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1. सभी रचनाकारों से विनम्र अनुरोध है कि जहां तक संभव हो अपनी रचना ई-मेल से भेजने का कष्ट करें। यह आप और हम दोनों के लिए अधिक सुविधाजनक है।
2. कृपया रचना के अंत में अपना पूरा पता, मोबाइल नंबर और ई-मेल पता लिखने का कष्ट करें।
3. आपका फोटो और संक्षिप्त जीवन परिचय भी ई-मेल से भिजवा दें ताकि हम उसे सुरक्षित कर लें।
4. यदि आप साधारण डाक से प्रकाशनार्थ सामग्री भेज रहे हैं तो वह दिल्ली के पते पर भेजें।
5. अक्षर पर्व की अधिकतर प्रतियां डाक से भेजी जाती हैं यदि प्राप्ति में कोई व्यवधान हो या आपका पता बदल गया हो तो aksharparv@gmail.com इस पते पर ईमेल करें।
6. समीक्षा के लिए आपकी पुस्तकों का स्वागत है, किन्तु स्थान सीमित है। जिन पुस्तकों की समीक्षाएं स्वीकृत हैं, उनके प्रकाशन में भी समय लग सकता है, अतएव धैर्य रखें।

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American Educational Research Journal

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September 2018

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AMERICAN PSYCHOLOGIST®

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On the cover: Sunset 38, *2017, by Jorge Luis Bernal. Encaustic monotype on paper, 16 inches by 20 inches. Courtesy of the artist, http://www.jorgeluisbernal.com.* *See p. 840 for more about Bernal and his art.*

Special Issue: New Directions in Developmental Science With Youth Experiencing Marginalization
Special Issue Editors: José M. Causadias, Adriana J. Umaña-Taylor, and Jacquelynne S. Eccles

707 Reframing Marginalization and Youth Development: Introduction to the Special Issue
José M. Causadias and Adriana J. Umaña-Taylor

In 1996, García-Coll et al.'s integrative model moved marginalization from the periphery to a central place in minority children's development, shifting the focus from deficiency to competency. Since then, critical sociohistorical changes have prompted a reconsideration of theories to guide work with youth experiencing marginalization. This introduction to the special issue reframes marginalization with greater nuance than previously and highlights key points from articles in the issue.

713 Contributions of the Integrative Model for the Study of Developmental Competencies in Minority Children: What Have We Learned About Adaptive Culture?
Norma J. Perez-Brena, Deborah Rivas-Drake, Russell B. Toomey, and Adriana J. Umaña-Taylor

Before García-Coll et al.'s landmark integrative model, scholars frequently viewed ethnic-racial minority youth development through a deficit lens, by which minority children's development was cast against a White middle-class standard. Here, the authors provide a systematic qualitative review of research pertaining to adaptive culture and offer a critical inquiry of current developmental research informed by the integrative model.

727 Theorizing the Benefits and Costs of Adaptive Cultures for Development
Rebecca M. B. White, Rajni L. Nair, and Robert H. Bradley

Children's socialization comes about in part through adaptation to family cultural systems. Recent cultural-developmental scholarship identifies numerous examples of *adapting cultural systems* that effectively build children's competencies, e.g., through family roles, parenting, values, and goals. However, in some cases, such systems undermine competencies. The authors present a set of propositions to address these theoretical and empirical tensions.

740 The Development of Purpose in Life Among Adolescents Who Experience Marginalization: Potential Opportunities and Obstacles
Rachel Sumner, Anthony L. Burrow, and Patrick L. Hill

A sense of purpose in life brings numerous benefits across the life span. While this construct has been widely studied, less is understood about how marginalization influences youths' development of a sense of purpose. The authors adopt a sociocultural perspective to consider how experiences of marginalization could shape an integrated sense of purpose among adolescents.

753 Understanding Development of African American Boys and Young Men: Moving From Risks to Positive Youth Development
Noni K. Gaylord-Harden, Oscar Barbarin, Patrick H. Tolan, and Velma McBride Murry

Among the most vulnerable populations experiencing marginalization, African American boys and young men are at increased risk for stigma and blocked opportunities. Research on this population has been widely framed from presumptive frameworks of disconnected youth and school-to-prison populations. The application of García-Coll et al.'s integrative model shifts the perspective to one of competencies and positive youth development.

(*Contents continue*)

768 New Directions for Racial Discrimination Research as Inspired by the Integrative Model
Eleanor K. Seaton, Gilbert C. Gee, Enrique Neblett, and Lisa Spanierman

Racial discrimination often results in negative developmental outcomes for minority youth. This observation has been thrown into sharp relief against a background of White nationalism, hate crimes, and national policies that disproportionately affect children of color. The authors refine the integrative model to guide research in relevant areas to study resiliency factors amidst adverse circumstances.

781 An Integrative Risk and Resilience Model for Understanding the Adaptation of Immigrant-Origin Children and Youth
Carola Suárez-Orozco, Frosso Motti-Stefanidi, Amy Marks, and Dalal Katsiaficas

Immigrant-origin children and youth are a demographically important segment of post-industrial nations. To conceptualize the diversity of their developmental adaptation, the authors incorporate evidence from psychology, education, and sociological disciplines accrued since García-Coll et al. (1996), situated in a climate of xenophobia and immigration crisis. The resultant integrative model presents positive frameworks for understanding both risk and resilience in immigrant-origin children.

797 Using Attachment and Relational Perspectives to Understand Adaptation and Resilience Among Immigrant and Refugee Youth
Linda P. Juang, Jeffry A. Simpson, Richard M. Lee, Alexander J. Rothman, Peter F. Titzmann, Maja K. Schachner, Lars Korn, Dorothee Heinemeier, and Cornelia Betsch

Migration is a widespread issue of the 21st century, affecting child development on a global scale. To understand its impact, the authors draw on principles of attachment theory and interpersonal relationships research to offer new insights into how children respond to migration experiences. Factors that can improve outcomes are considered, along with strategies to promote positive development of immigrant and refugee children.

812 Invisibility of Racial/Ethnic Minorities in Developmental Science: Implications for Research and Institutional Practices
Moin Syed, Carlos Santos, Hyung Chol Yoo, and Linda P. Juang

Racial/ethnic minorities have historically been marginalized in the science of psychology. Bolstered by the integrative model, developmental psychologists have been at the forefront of research to correct this disparity, studying character strengths and promotive environments. Yet ethnic minority individuals are frequently missing from study participants and often underrepresented among researchers. The authors combine the integrative model with intersectionality to frame complex questions about this invisibility in developmental science.

827 Moral Meta-Narratives, Marginalization, and Youth Development
José M. Causadias, Kimberly A. Updegraff, and Willis F. Overton

Beyond the individual level of moral reasoning, morality operates at the societal level, where it takes the form of meta-narratives. Two primary meta-narratives are 'liberal progress', the struggle of those who have historically experienced marginalization, and 'community lost', reflecting individuals who experience marginalization following cultural and economic change. Drawing on relational epistemology, the authors resynthesize these narratives to more broadly capture children's experiences of marginalization.

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वर्ष 38 अंक 1 जुलाई 2017

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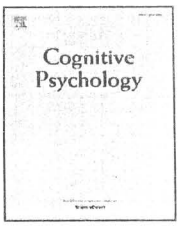

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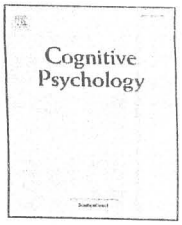

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Middle left provided by Tiago Pereira from **'Synchronisation of chaos and its applications'**, Contemporary Physics (2017) 58:3, 207–243, Figure 1. Illustration of the chaotic dynamics of the Lorenz system (14) with parameter values $\sigma = 10$, $\rho = 28$ and $\beta = 8/3$. Representation of the trajectory of (x, y, z) = (−10, 10, 25) in the phase space. The shape of the attractor resembles a butterfly.

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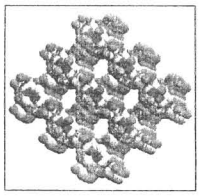

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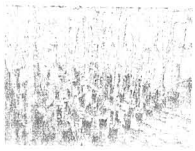

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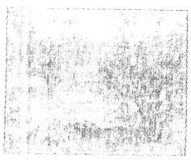

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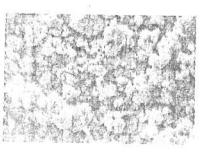

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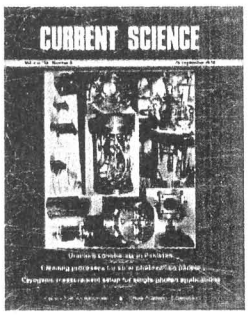

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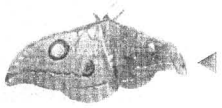

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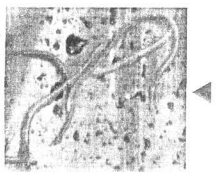

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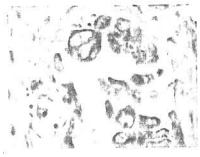

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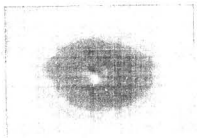

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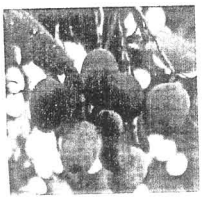

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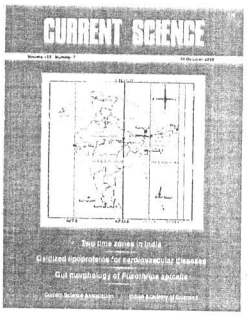

◀ COVER. Proposed map of India showing two time zones: IST-I (UTC + 5 : 30 h) and IST-II (UTC + 6 : 30 h). See page 1252.

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MORE FROM US

DTE YOUTUBE

Ganga crusader

Noted environmentalist G D Agrawal talks about his long struggle to save the Ganga. The octogenarian has been fasting for three months. He is ready to abstain from water too.

goo.gl/JCnM1U

Homemade solutions

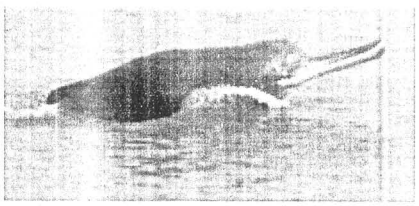
Watch this video to learn how to make natural skin and hair care products. Chennai resident, Kirti Negi Bajoria, prepares a nourishing homemade hair conditioner using flaxseed and natural ingredients to tame dryness and tangles.

CSE-DTE DATA CENTRE

Sinking cities

By 2050, Mumbai, Chennai, Surat and Kolkata will be among the 13 cities in the Asia-Pacific region to face huge economic loss due to regular flooding.

Vanishing species



Many species are on the verge of extinction due to poaching and habitat loss. In India, Gangetic Dolphins are endangered due to rampant damming of the Ganga.

www.downtoearth.org.in/infographics

WEB SPECIAL

Melting fast

The Arctic Sea ice cover reached its lowest extent on September 19 and 23. This is tied for the sixth lowest on record.

www.downtoearth.org.in

Culture preserved millets

Despite India's favourable policy towards rice and wheat, millets have survived, thanks to festivals, which play a vital role in preserving them.

FACEBOOK

Modi's UN award

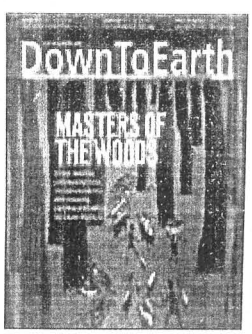
Critics express doubts over whether PM Narendra Modi is the right choice for the Champions of the Earth award.

@down2earthindia

GLIMPSES FROM OUR ARCHIVE

Fight over forests rights

The Maldharis in the Banni grasslands of Kachchh are staring at an uncertain future. The Gujarat government has gone back on its commitment towards granting community forest rights (CFR) to them. In *Masters of the Woods* (16-31 December, 2017), *Down To Earth* noted that most forest departments have played an obstructive role in CFR by challenging the authority of the *gram sabhas* and imposing parallel schemes in the CFR areas of India.



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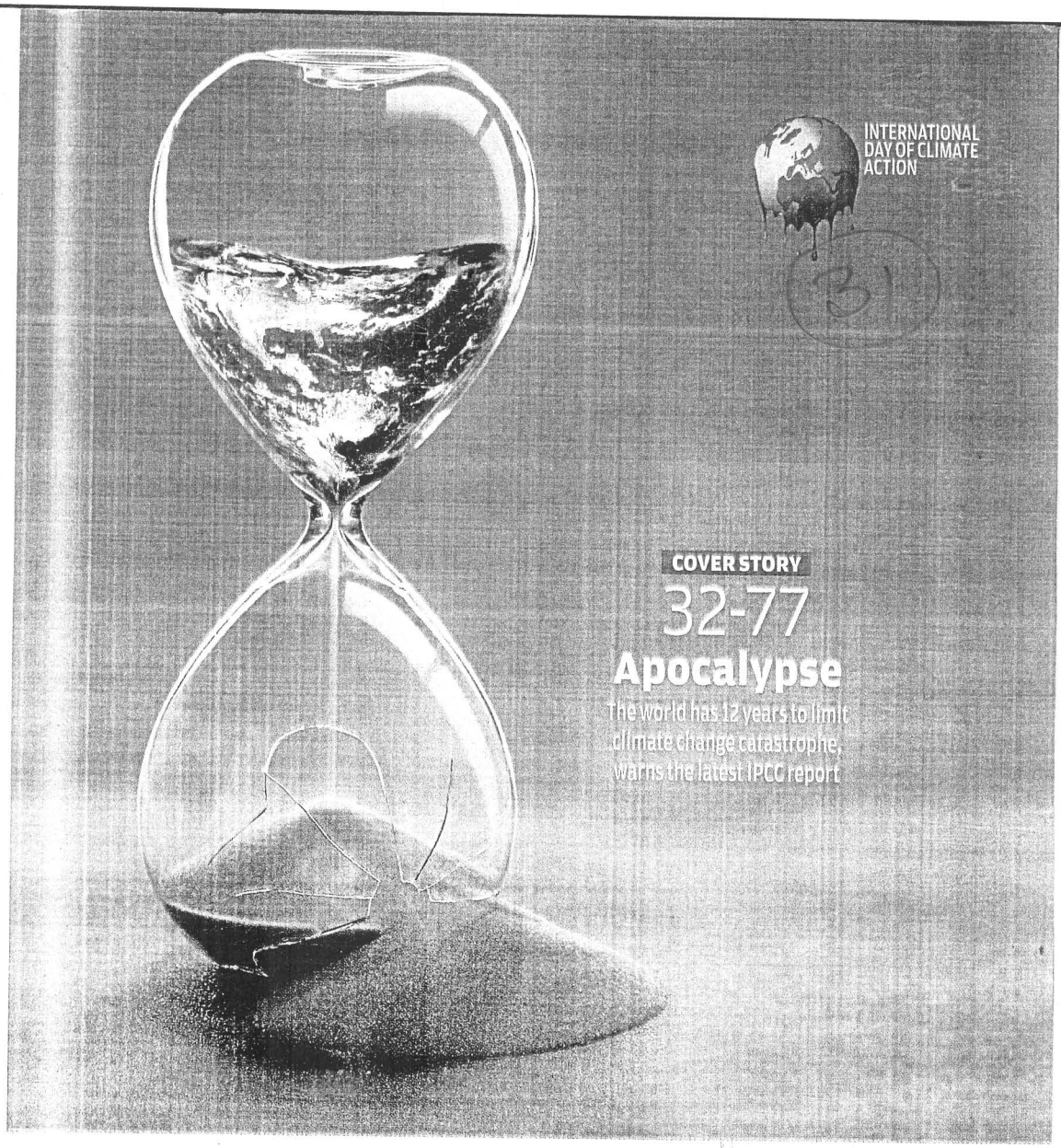

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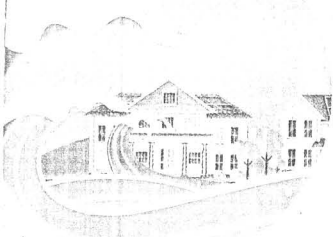
The world has 12 years to limit climate change catastrophe, warns the latest IPCC report



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The Union government's push for Jatropha cultivation for biodiesel production can undermine food security

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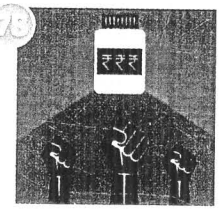
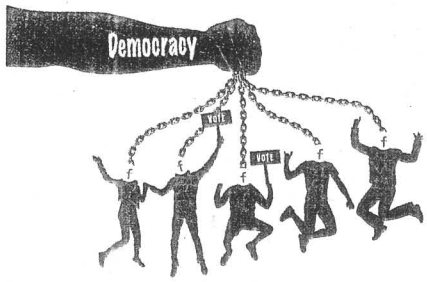
There is a concerted effort to fight Big Pharma over rising drug prices





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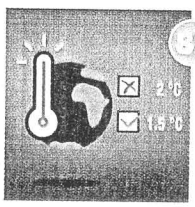

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The world must fix climate change goal at 1.5°C to avert worst impacts

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12 The Personal Data Protection Bill, 2018 is placed in the context of the challenges to Aadhaar, Europe's General Data Protection Regulation, and the "tech-lash" against the largest US-based tech companies. — *Amba Kak*

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16 The Constitution provides for "freedom of conscience" under Article 25 since 1950, but constitutional rights of "non believers" were never substantiated by courts until recently. — *Anurag Bhaskar, Shubham Kumar*

Role of Dams in Kerala's Flood Disaster

20 During the July–August 2018 floods in Kerala, basic norms were violated in the management of dams, which, if operated prudently, could have alleviated the magnitude of the disaster. — *Himanshu Thakkar*

Foxes and Hedgehogs of India's Senior Civil Services

30 One of the neglected areas of reforms of India's organised senior civil services relates to the rationalisation of its branching structure and the related debate of generalist vs specialist services. — *Praveen Kishore*

Climate Justice and Gandhian Morality

74 The applicability of Gandhian principles of morality to conceptions of climate justice is examined by exploring the ways in which the idea of M K Gandhi is articulated in an Indian context. — *Ramya K Tella*

Thwarting Water Sector Reforms

82 A water bureaucrat's response to the critique of the Mihir Shah Committee report by M Dinesh Kumar et al ("New 'Water Management Paradigm': Outdated Concepts?" EPW, 9 December 2017) — *J Harsha*

Market Power and Competition Policy

Five articles analyse conflicts between regulation and competition law in the telecom and the ICT sectors, the economics of search engines and two-sided markets, and how NSSO data can be used to define a relevant antitrust market.

Regulation and Competition Law in the Indian Telecom Sector

38 Where the regulatory and competition agency reach conflicting decisions, the issue can be resolved by a third body whose decision is binding on both the regulator and the competition agency. — *Vikas Kathuria*

Challenges of Competition and Regulation in the Telecom Sector

45 As competitive forces continue to redefine the telecom sector's dynamics, it creates new challenges for regulation and competition enforcement. — *Smriti Parsheera*

Information and Communications Technology Markets

53 The economics of the information and communication technologies industry is discussed, along with features of the Competition Act, 2002 and its relevance to the "new economy." — *Subhashish Gupta, Kalpana Tyagi*

Internet Search Engines and Two-sided Markets

61 An exploration of the economics of search engine markets is presented along with a discussion about the economic literature on two (multi)-sided markets. — *Viswanath Pingali*

Repurposing NSSO Data for Market Definition

67 Demand elasticities for a set of consumption goods are estimated using the Heckman sample selection model, which corrects for sample selection biases and specification errors appearing in NSSO survey data. — *Gaurav S Ghosh*

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A look at the United States' role in the world order as it struggles to establish a legitimate consensus on the nature of its relationship with the rest of the world and on how world politics itself should be regulated — *Zorawar Daulet Singh*

preme Court Judgment against Section 377

The Supreme Court's judgment on Section 377 is an important reminder of the task that lies ahead for the queer movement to articulate an intersectional politics of hope that does not exclude those who are on the wrong side of caste, religion and ethnicity. — *Zaid Al Baset*

dia's Cities without Ownership

The 74th Constitution Amendment Act envisaged urban local bodies as "institutions of self-government" with empowered mayors; however, this is scarcely followed. — *V R Vachana*

e Need to Talk about 'Language'

A personal anecdote reflects on the power dynamics and the politicisation of language, revealing it to be a mere plot device in the greater conflicts fought over the markers of Indian identity. — *Vedita Cowaloosur*

hnicity, Religion, and Identity Politics among Tribes

The underlying causes for the ethnic, religious, and political divides among the tribals of Jharkhand have been examined. — *Anant Kumar, Pramil K Panda*

ghts-based Approaches to Development in Odisha

Two strategies employed by non-governmental organisations that are key to a rights-based approach to development are examined, ensuring the active engagement of state duty-bearers and building alliances at multiple levels. — *Nita Mishra, Edward Lahiff*

e Multiple Meanings of Nature Conservation

A critical examination of the ongoing efforts for tiger conservation in Dibang Valley, Arunachal Pradesh, exposes the fault lines in the narrative of nature conservation as the state imposes its agenda without considering the needs of the local Mishmi tribe. — *Ambika Aiyadurai*

se of the Corporate NGO in Bangladesh

The role of NGOs, their emergence with the rise of the neo-liberal world view and new economic order, as also their retreat, polarisation, integration and subsequent corporatisation are explored. — *Anu Muhammad*

engthening Fiscal Health of Urban Local Bodies

In West Bengal, municipality finances are in a grossly unsatisfactory state, and there is a need for strengthening the fiscal health of urban local bodies. — *Maumita Das, Soumyadip Chattopadhyay*

e Potential of Participation in Global Value Chains

The North Eastern Region has comparative trade advantage in producing labour-intensive products, and participation in services-based global value chains, particularly tourism, can be very profitable for it. — *Bishwanjit Singh Loitongbam*

stscript

Aditya Shrikrishna on political messaging in Tamil cinema; *M R Sharan* on time and memory in rural Bihar; *Kaaren Mathias* on how a pristine, secluded waterfall became prey to thoughtless "conservation;" and Last Lines by *Ponnappa*.

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Gender Justice and Its Impediments

7 Public support for the protesting nuns in Kerala signals hope for the cause of gender justice.

How to Believe Women

8 Women speak out as they reclaim not only their strength, but also their knowledge.

High Time to End Tuberculosis

8 The time to act is now if we want to eradicate tuberculosis by 2030.

The Call for a National Code of Conduct

10 What are the resources and concerns that can contribute to a substantive ethical code for the political class from the experience of the working of parliamentary democracy in India? — ***Valerian Rodrigues***

Rethinking India's Employment Data Architecture

14 Given that employment is dominated by low-wage and low-productivity jobs in the unorganised sector, a revamp of the employment data architecture will only deflect attention from the enormity of the employment challenge. — *Radhicka Kapoor*

Identifying the 'Poor' and 'Backward'

17 The various aspects involved in identifying the "poor" and "backward" in India for the purpose of targeted public policies are examined. — ***Rohit Mutatkar***

Impact beyond Tax Theory

20 A tribute to the Nobel Prize-winning economist James Mirlees (1936–2018). — *Amiya Kumar Bagchi*

The Role of Teacher Education Programmes

27 Teacher education programmes are critical in influencing notions of citizenship, either by reinforcing the prevalent notions or in expanding the horizons within which citizenship is understood and practised. — *Seema Sarohe*

Marx at 200: Beyond Capital and Class Alone

33 As we mark Karl Marx's 200th birth anniversary, we find that in his last, still partially unpublished writings, he turns his gaze Eastward and Southward as he envisions an alliance between non-working-class strata in these regions and the Western European working class. — ***Kevin B Anderson***

The Hope and Dilemma of the Urban Poor

40 Many slum households face the dilemma between opting for better and more secure living conditions, and losing some of the advantages of living in a slum and the possibility of a free home. — ***Padmini Ram, Barrie Needham***

Enhancing Affordable Pharmaceutical Healthcare

48 As India strives to balance the need to provide affordable healthcare with a thriving market for a competitive pharmaceutical industry, the nexus between compulsory licensing, competition law and patent law merits closer examination. — *Natasha Nayak*

Estimates of Tobacco-dependent Employment in India

58 While the central government's demand-side measures for tobacco control seem effective, controlling the supply of tobacco and providing alternative vocations to tobacco-dependent workers is necessary. — ***Nayanatara S Nayak***

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A Private Debt Story

10 The features of the ongoing currency and debt crisis engulfing Turkey with potential spillover to the rest of the emerging markets are discussed. — ***T Sabri Öncü***

Recent Downfall of the Indian Rupee

12 A combination of substantial trade and current account deficits, and India's huge dependence on oil, gold and electronics imports could have made the rupee vulnerable. — ***Parthapratim Pal, Partha Ray***

Sanatan Sanstha and Its Hindutva Designs

17 As the threat that the Sanatan Sanstha poses is highlighted once again after the arrests of a few of its followers and sympathisers, what more evidence does the centre need to ban the organisation? — ***Sanghamitra Prabal***

Dwijendra Tripathi (1930–2018)

20 It was Dwijendra Tripathi's pioneering contributions that demarcated the fledgling field of business history in India. — ***Howard Spodek***

Protection of Traditional Knowledge

29 The new National Intellectual Property Rights Policy advocates an aggressive, neo-liberal agenda of commodification of knowledge, and extends this to traditional knowledge as well. — ***Indrani Barpujari, Ujjal Kumar Sarma***

Review of Environment and Development

Seven articles offer insights into the agriculture–environment relationship through an analysis of agroecological conditions and practices in India.

Global Status of Agroecology

52 The history and practices of agroecology are outlined, and the ecological, social, economic, and political challenges for transformation to agroecology and food sovereignty have been identified. — ***Michel P Pimbert***

Maximum Sustainable Yield: A Myth and Its Manifold Effects

58 How the concept of maximum sustainable yield was originally developed and became a part of the "accepted wisdom" has been analysed. — ***Madhuri Ramesh, Naveen Namboothri***

State, Community and the Agrarian Transition

64 With the commercialisation of agriculture and the gradual emergence of private property rights, community-based institutions for natural resource management are undergoing transformation in Arunachal Pradesh. — ***Deepak K Mishra***

Urbanisation and New Agroecologies

71 Using a combination of land-use change analysis and group interactions, the temporal and spatial patterns in the impacts of urban expansion on agroecology in Bengaluru's peripheries have been traced. — ***Sheetal Patil, Dhanya B, Raghvendra S Vanjari & Seema Purushothaman***

Agroecological Farming in Water-deficient Tamil Nadu

78 The principal crop in Tamil Nadu is rice, which is water intensive, but millets are less water intensive and an agroecological system of farming millets ought to take into account a whole gamut of political and ecological issues. — ***C Saratchand***

Indian Agriculture: Redefining Strategies and Priorities

84 For food and ecological sustainability of Indian agriculture, the state's interventions must be on the basis of the conservation agriculture approach. — ***Raj Gupta, Mamta Mehra, Rabi Narayan Sahoo & Inder Abrol***

Bovine Politics and Climate Justice

92 Smallholder farmers pushed out of dairy and other livestock livelihoods are organising in creative ways, radically opposed to dominant policy recommendations, to counter this situation. — ***Sagari R Ramdas***

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7 The Agriculture Census 2015–16 establishes that structural constraints continue to exacerbate the agrarian crisis.

The All-purpose Migrant Worker

8 Migrant workers in India provide cheap labour and are also scapegoats blamed for all socio-economic ills.

Why We Will Forget Kathua, and Why We Should Not

9 Does Kathua have a place in the larger narrative of our national identity?

Criminal Laws and Civil Rights

10 In understanding the true scope of civil rights in India, it is important to pay attention to the judgments where the Indian Penal Code, the Code of Criminal Procedure, and the Indian Evidence Act are being interpreted, as two recent Supreme Court judgments illustrate. — *Alok Prasanna Kumar*

Dissecting 'Modicare'

12 Ayushman Bharat–National Health Protection Scheme will end up channelling huge public funds to the private coffers of the insurance companies and private hospital chains, with questionable gains to the target population. — *Anand Teltumbde*

Experiences and Perceptions of Discrimination among Dalits and Muslims

14 Through the use of new survey data, the experiences and perceptions of discrimination among Dalits and Muslims have been quantified, with the results being even more worrisome when we consider that self-reports of discrimination perhaps underestimate the true extent of the problem. — *Payal Hathi, Diane Coffey, Nazar Khalid, Nidhi Khurana & Amit Thorat*

Social Activist and Catalyst for Justice: Girish Patel (1932–2018)

18 Girish Patel used his immense knowledge of law to fight legal battles for the marginalised, and set up the Lok Adhikar Sangh to play a supportive role in the movements for social and political justice. — *Darshini Mahadevia, Ghanshyam Shah*

Mine Closures and the Issue of Livelihood

26 In order to analyse the shift in the livelihoods of people during and after mining operations, different stakeholders of Hindustan Zinc Limited in Sargipali, Odisha across 24 mining villages were interviewed, showing a grim picture owing to the lack of a sustainable mine closure plan or transparency between the planners and the villagers. — *Sujit Kumar Mishra*

Profit Inflation, Keynes and the Holocaust in Bengal, 1943–44

33 In colonial India, extreme and deliberate profit inflation was implemented by the British to finance war spending by the Allied forces, leading to the death by starvation of three million persons during the Bengal famine of 1943–44. — *Utsa Patnaik*

Mapping Violence in the Lives of Adivasi Women: A Study from Jharkhand

44 The everyday experiences of violence that Adivasi women of Jharkhand undergo, and how they negotiate with power structures within the family system and society, and are further entrapped in gender hegemonies that are part of larger shifts in the political economy, are mapped. — *Kriti Sharma*

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53 Using data from the household surveys on health conducted by the National Sample Survey Office between 2004 and 2014, the utilisation patterns of health facilities for childbirth and the associated out-of-pocket expenditure are analysed. — *Charu C Garg, J Pratheeba & Jyotsna Negi*

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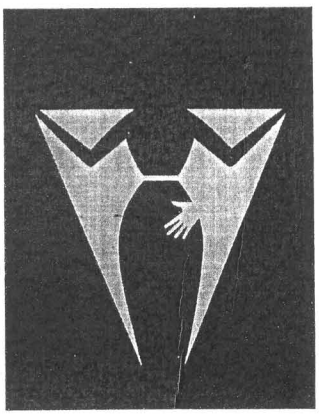

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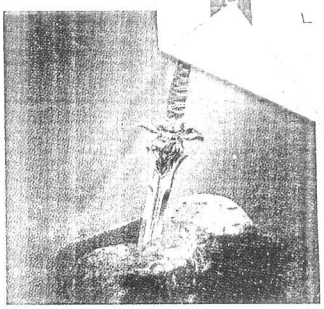

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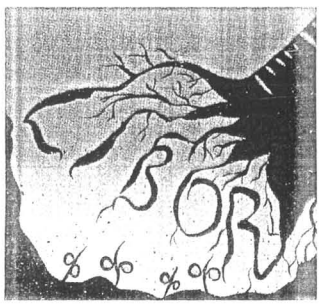

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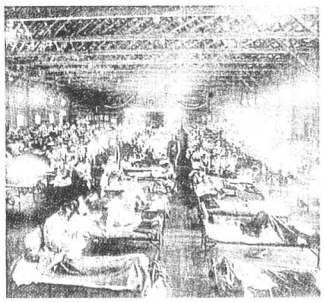

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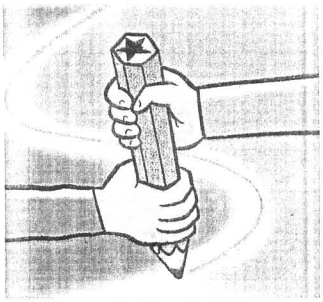

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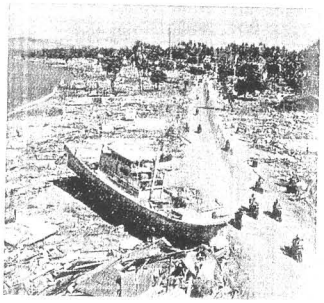

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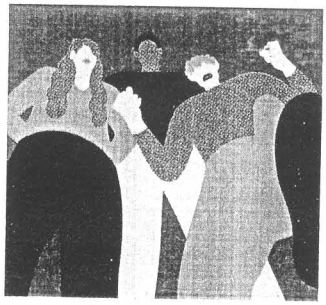

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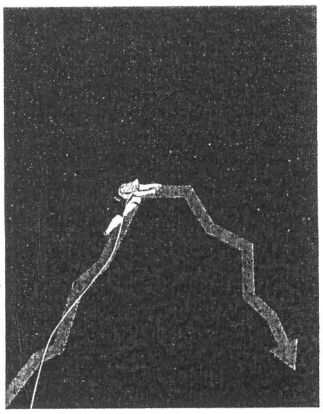

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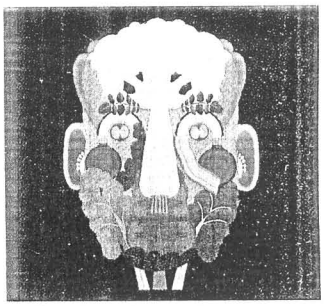

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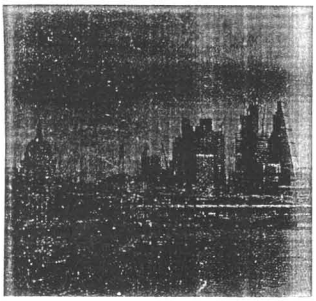

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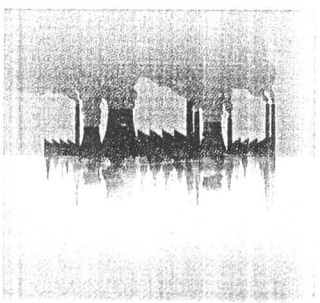

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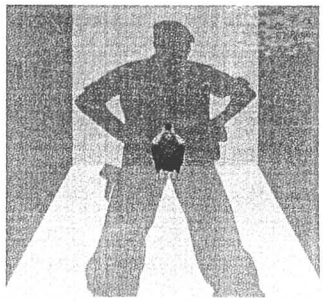

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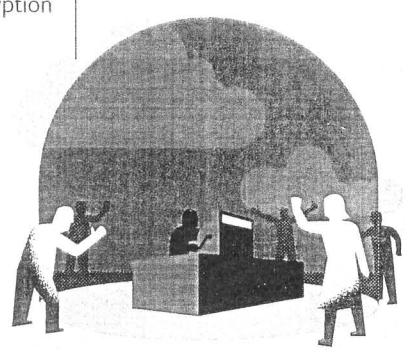

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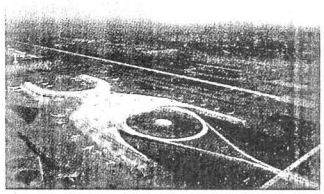

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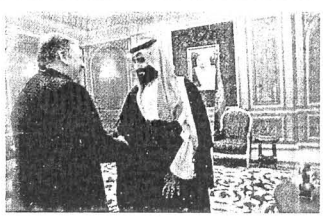

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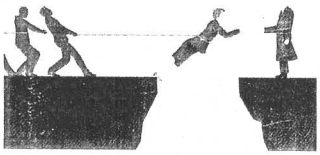

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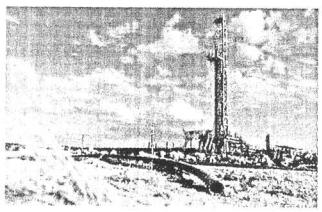

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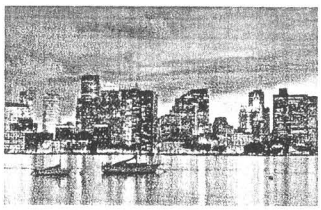

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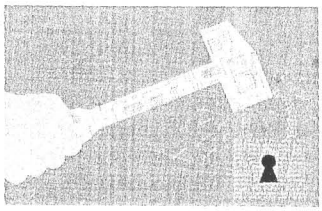

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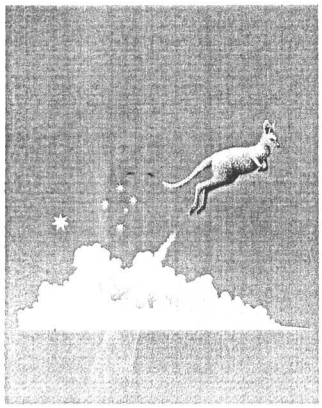

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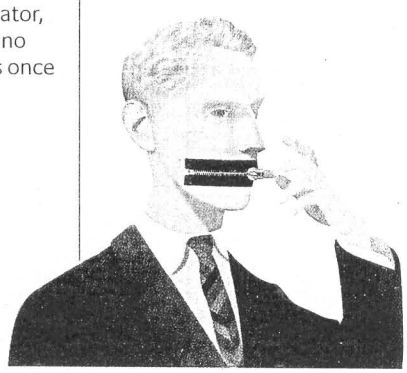

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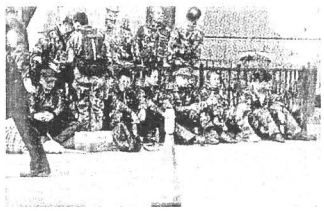

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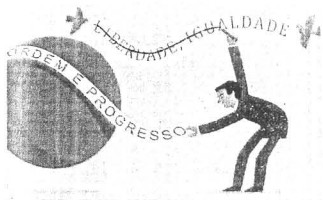

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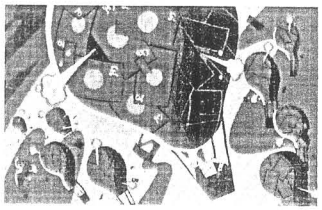

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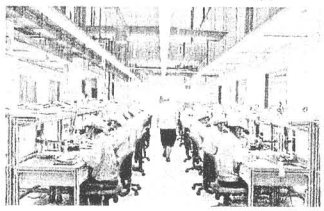

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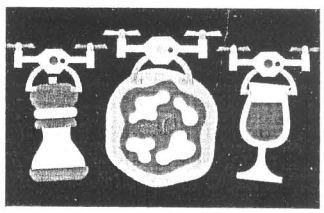

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Education in Science

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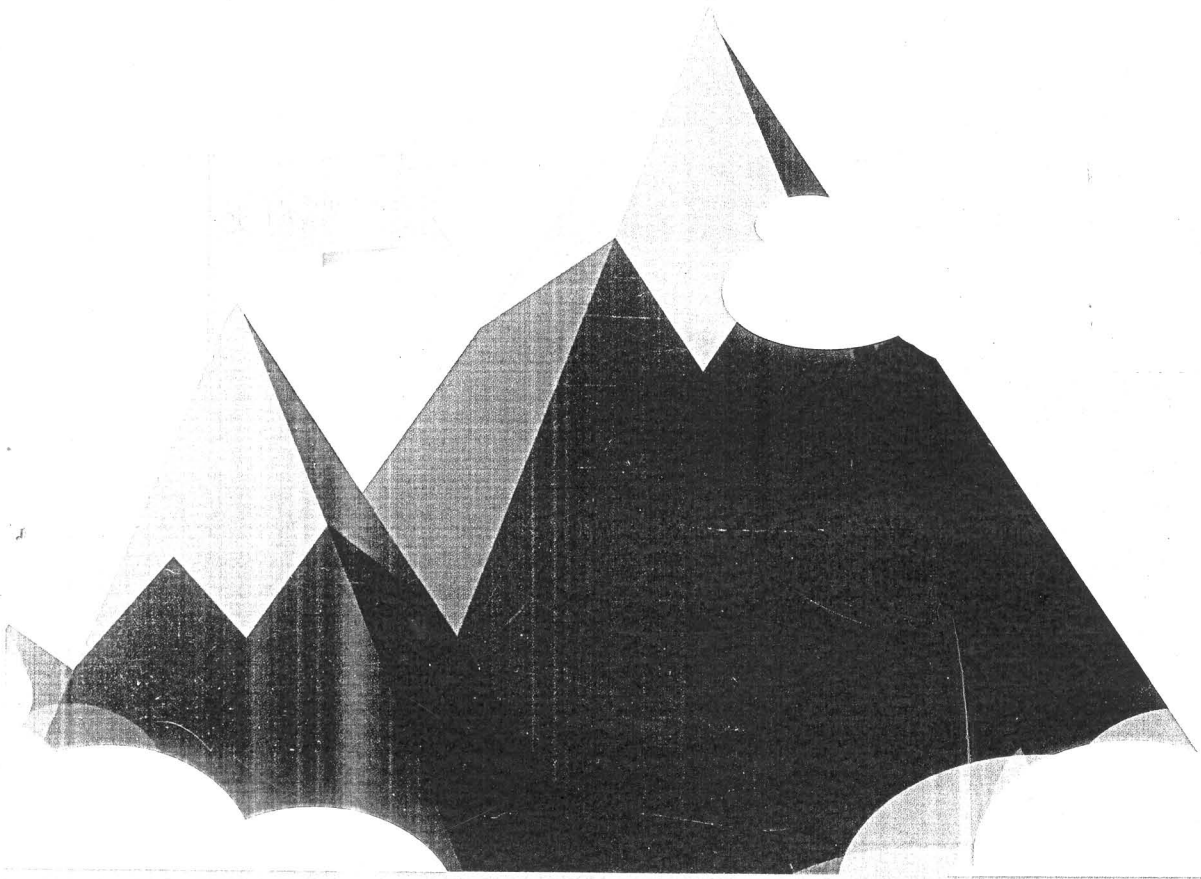
Triple Science : Equitable or Elitist?

Are we setting our students off on different routes with the knowledge that they do not have a chance of ever reaching the same summit?



The Association for Science Education
Promoting Excellence in Science Teaching and Learning

Editorial

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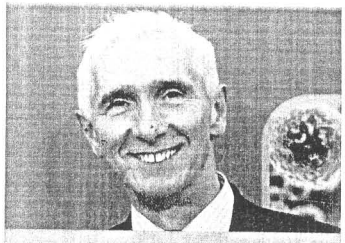
Welcome to this new format of *Education in Science*, which we hope you will enjoy.



Shaun Pearson
Chief Executive
Twitter: @ShaunPearson

Its arrival through your letterbox follows the launch of our new website (www.ase.org.uk) over the summer. We are thrilled that our website is now live and excited to provide you with a more engaged online experience. The website showcases our unique content and also now incorporates the resources of Primary Upd8 and schoolscience. We hope that you will find it appealing and accessible from a range of mobile devices.

The new website design is the first in a series of significant changes planned over the next few years. Like our website, this issue of *EiS* has been redesigned following requests made by members for shorter, sharper and more information-focused articles that are easier for them to read, as well as the need for a central feature article to raise debate.

In this issue, you will find that our central cover story is about the dual science pathway in Key Stage 4 (ages 14-16) in England. The article includes a variety of views from experts about science where, unlike English and mathematics, there is more than one route. Is this right and is it equitable? What is your view? We aim to include a central feature like this in our future issues. For example, we must look at the increasing differences occurring in science across our four UK nations and also consider the different ways that primary science is treated.

Science is probably the most diverse and constantly changing subject in the curriculum and requires continual development and support. The interest of young people in science is encouraged and developed by inspiring and knowledgeable teachers and technicians. Science technicians work hard behind the scenes, often holding a department together, and provide essential support to both teachers and their students. They need to have access to science-specific continuing professional development (CPD). One of our past ASE Chairs, Chris Colclough, provides a short report on a survey conducted by the ASE Education Group on technician CPD (see page 19).

Those of you who also receive *School Science Review* will discover that this is being trialled in a new A4 format this autumn. There will be a survey in early 2019, through which we hope to encourage our members to become involved regarding our future journal provision. We will be interested to receive feedback on the new formats of both journals as we begin this review of our published member benefits.

Finally, I'd like to welcome Mary Whitehouse as our new Chair of the Association, to thank Linda Needham for her excellent support as Chair during 2017/18...and to wish all of you a successful 2018/19 academic year. Happy reading!

The Association for Science Education
Promoting Excellence in Science Teaching and Learning

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Scott Thornbury

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Pete Sharma and Barney Barrett

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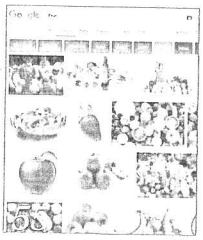

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539 The Development and Validation of the Contemporary Critical Consciousness Measure II
Richard Q. Shin, Lance C. Smith, Yun Lu, Jamie C. Welch, Rajni Sharma, Collin N. Vernay, and Stephanie Yee
This study demonstrated support for a new measure intended to assess a person's awareness of systems and institutions in U.S. society that serve to oppress certain groups. The CCCMII is designed to specifically assess a person's awareness of sexism and ableism. The authors hope future research on this scale will demonstrate its usefulness in evaluating mental health professionals' sensitivities to these issues.

556 Gendered Racism Scales for Asian American Men: Scale Development and Psychometric Properties
Tao Liu, Y. Joel Wong, Cara S. Maffini, Nancy Goodrich Mitts, and Derek K. Iwamoto
This study focused on developing a scale to investigate Asian American men's experience of gendered racism, that is, discrimination jointly based on their gender and race. The authors found that Asian American men's experience of gendered racism was uniquely and positively related to psychological distress and somatic symptoms.

571 Gendered Racial Microaggressions Scale for Asian American Women: Development and Initial Validation
Brian TaeHyuk Keum, Jennifer L. Brady, Rajni Sharma, Yun Lu, Young Hwa Kim, and Christina J. Thai
We developed the GRMSAAW to assess the unique gendered racial microaggressions Asian American women experience and found promising initial psychometric properties measurement utility. Gendered racial microaggressions were significantly associated with Asian American women's depressive symptoms over and above perceived racial microaggressions or sexist events.

586 Experiences of Transmasculine Spectrum People Who Report Nonsuicidal Self-Injury: A Qualitative Investigation
Kasey Jackman, Brittany Edgar, Amanda Ling, Judy Honig, and Walter Bockting
This study suggests that nonsuicidal self-injury (NSSI) among transmasculine spectrum people may be related to a combination of known risk factors for NSSI and experiences of stress from stigma due to their transgender identity. Findings highlight the need for health care providers to anticipate stressors related to transgender identity development in the context of societal stigma attached to gender minority identities and NSSI, take steps to intervene at the individual and family levels, and advocate for changes in policy to reduce stigma and facilitate gender affirmation.

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598 The Relative Importance of Parent–Child Dynamics and Minority Stress on the Psychological Adjustment of LGBs in China
Jianmin Shao, Esther S. Chang, and Chuansheng Chen
The findings revealed that parent–child relationship factors may be more important for the well-being of lesbian, gay, and bisexual young adults in China than the stress of being part of a socially stigmatized group. These findings raise awareness of the importance of cultural factors in counseling sexual minority youth.

605 Career Development Among Undocumented Immigrant Young Adults: A Psychology of Working Perspective
Kelsey L. Autin, Ryan D. Duffy, Caitlin J. Jacobson, Kabeel M. Dosani, Dominique Burker, and Elizabeth M. Bott
This study documents the work-related barriers (e.g., economic constraints, limited ability to travel) faced by undocumented young adults in the U.S. Additionally, it highlights the impact of public policy and social support on this population.

618 Workplace Climate and Satisfaction in Sexual Minority Populations: An Application of Social Cognitive Career Theory
Alexander K. Tatum
This study examined factors that promote work satisfaction among sexual minority employees. Results suggest there is a positive relationship between disclosing a minority sexual orientation and work satisfaction in affirming work environments, but no relationship between disclosure and work satisfaction in nonaffirming work environments.

629 Contemporary Applications of Moderation Analysis in Counseling Psychology
Julie A. Lorah and Y. Joel Wong
Moderation analyses typically describe when or for whom a variable is related to an outcome. This article discusses recent advances in moderation analyses, with an emphasis on how they can be applied in counseling psychology research.

641 The Effects of Routine Outcome Monitoring (ROM) on Therapy Outcomes in the Course of an Implementation Process: A Randomized Clinical Trial
Heidi Brattland, John Morten Koksvik, Olav Burkeland, Rolf Wilhelm Gråwe, Christian Klöckner, Olav Morten Linaker, Truls Ryum, Bruce Wampold, Mariela Loreto Lara-Cabrera, and Valentina Cabral Iversen
This study demonstrated improved outcomes for adult outpatient treatment when clients' session-to-session treatment responses were tracked with short routine outcome monitoring (ROM) questionnaires. The effect of ROM increased over the 4-year trial period, suggesting that it may take time to implement an effective ROM program and that training and supervision of therapists should be sustained over time.

653 Self-Affirming Values to Increase Student Veterans' Intentions to Seek Counseling
Andrew J. Seidman, Nathaniel G. Wade, Daniel G. Lannin, Patrick J. Heath, Rachel E. Brenner, and David L. Vogel
This study suggests that a self-affirmation intervention is effective at increasing intentions to seek counseling among student veteran populations. These findings demonstrate the importance of preceding the presentation of useful, but potentially threatening information with a self-affirmation intervention.

661 Group- and Individual-Level Self-Stigma Reductions in Promoting Psychological Help-Seeking Attitudes Among College Students in Helping Skills Courses
Brian TaeHyuk Keum, Clara E. Hill, Dennis M. Kivlighan, Jr., and Yun Lu
We found that section-level, but not individual-level, reductions in self-stigma predicted positive attitude toward psychological help-seeking. Results suggest potential importance of group norm changes and effects on promoting individuals' psychological help-seeking attitudes.

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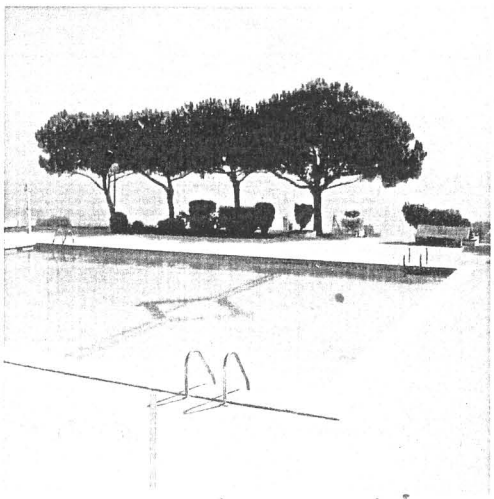

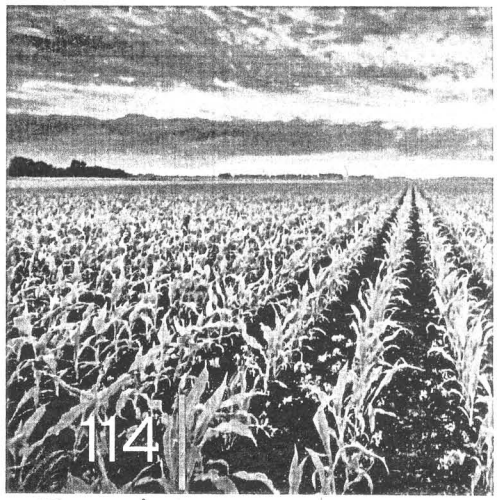

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on the cover

Currently, there is a worldwide problem of water loss from leaky supply pipes. Measuring water flow has become an important engineering problem. Teachers worldwide constantly seek modeling problems that connect abstract mathematics to real-world phenomena. Robin Angotti and Rejoice Mudzimiri have managed to find a way to combine these two issues in an activity that uses inexpensive materials that are easy to obtain. Turn to page 92 to find out how they have done so.

To whet readers' appetites for the November–December focus issue titled "Tool Kit for Early-Career Teachers," we have included two articles: "Essential Advice for New Educators," by Kayla Rymer, and "Formative Assessment: Easy as 1, 2, 3," by Evthokia Stephanie Saclarides and Juan Manuel Gerardo. There will be many more articles for early-career teachers coming next month—look for them!

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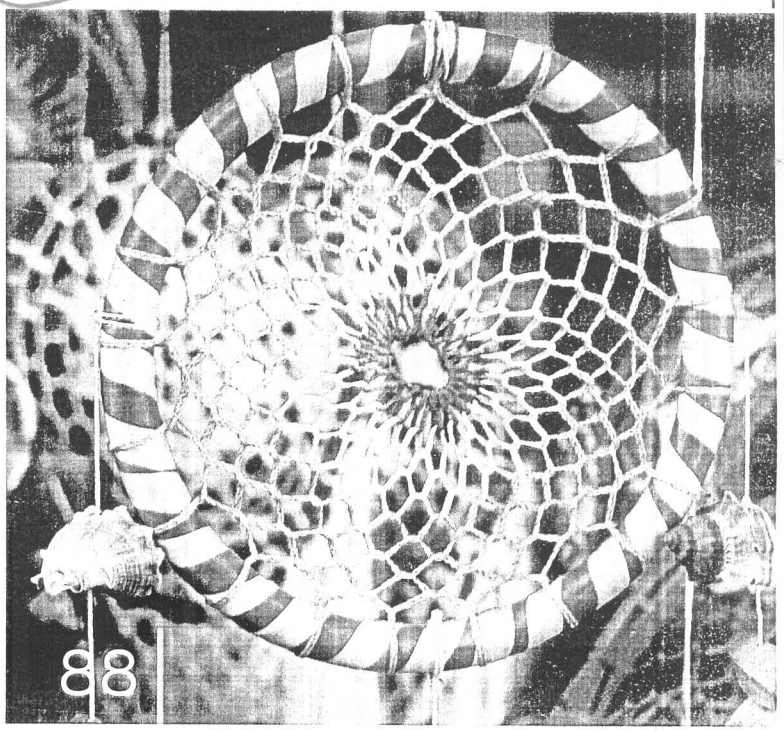

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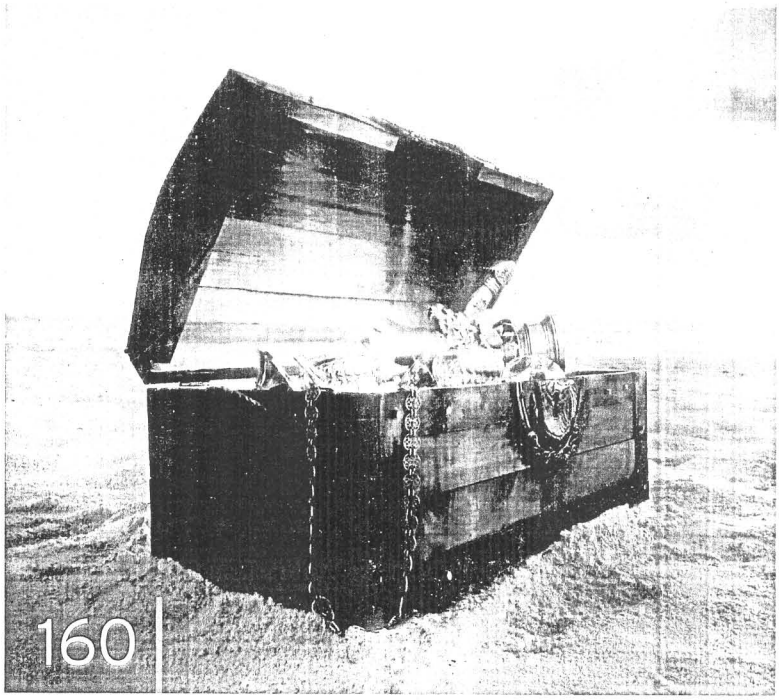

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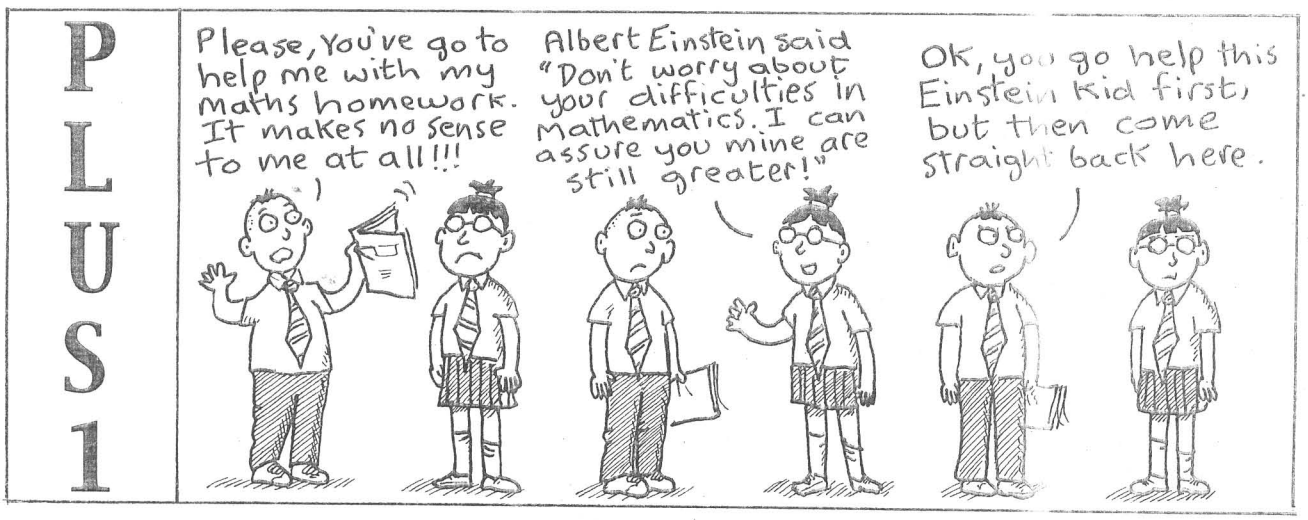

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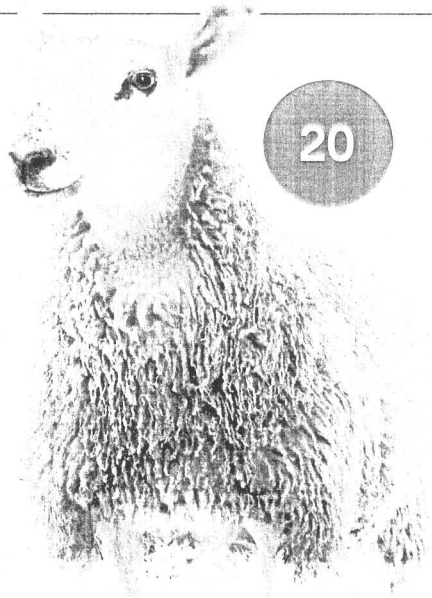

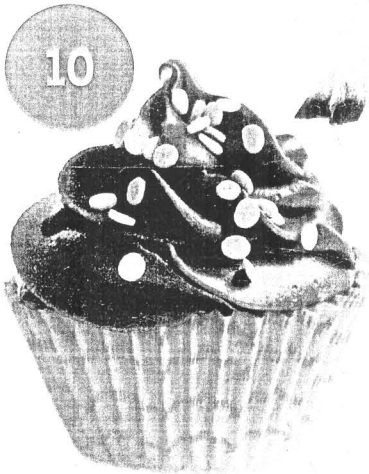

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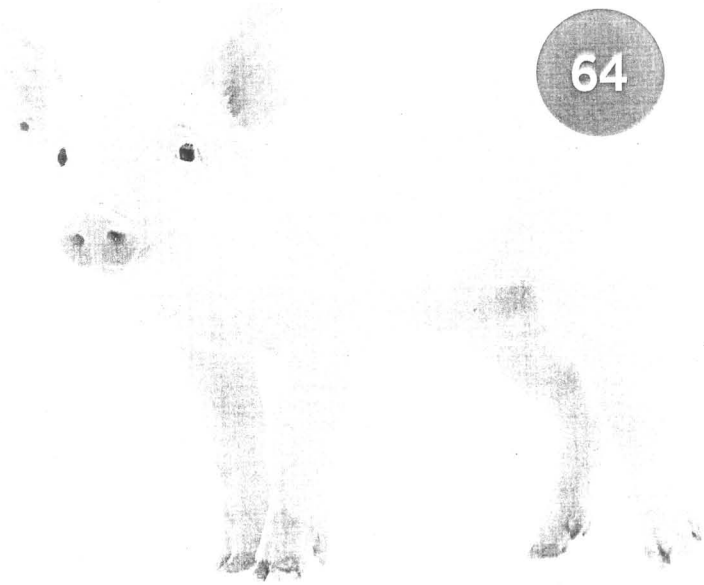

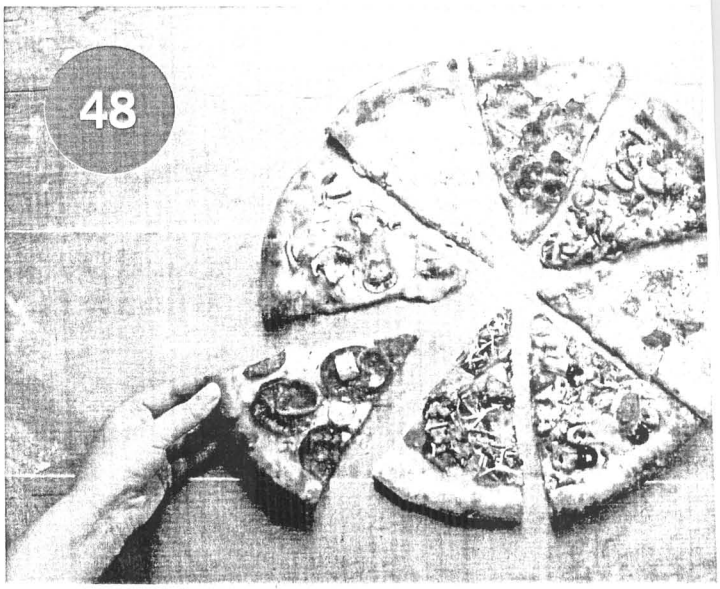

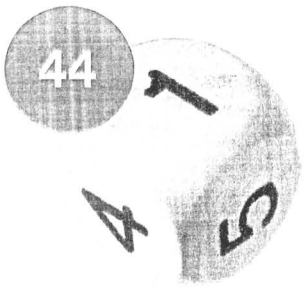

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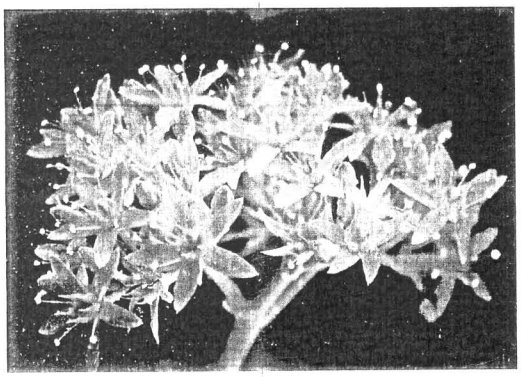

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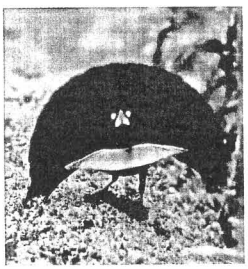

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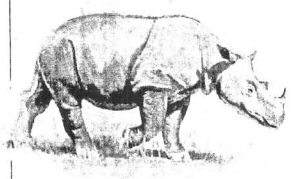

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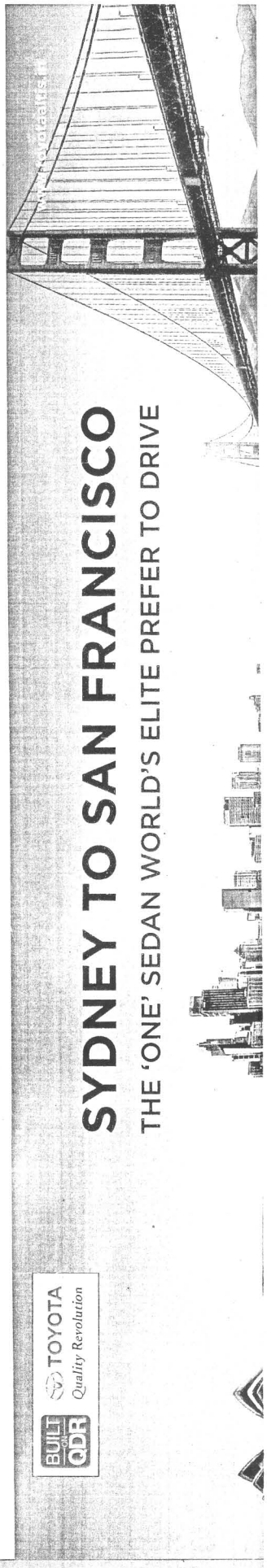

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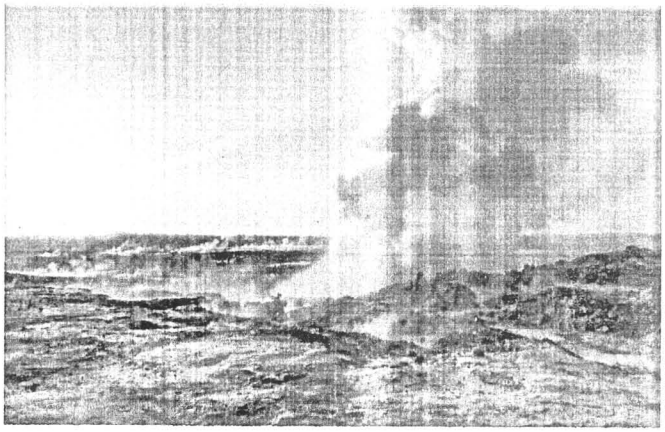

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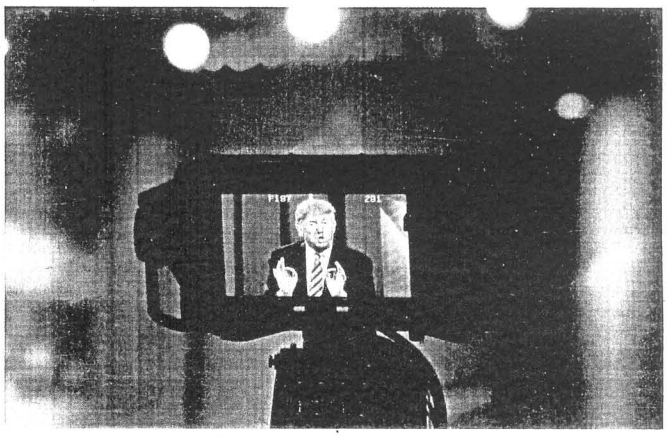

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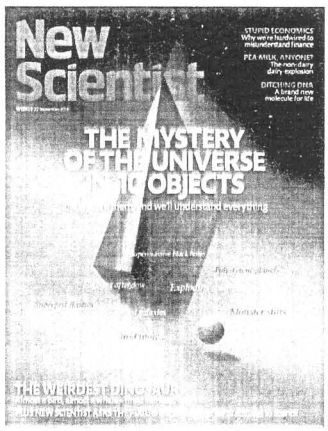

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JONNY WAN

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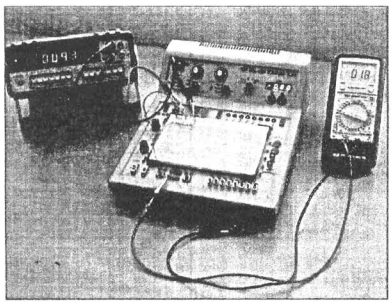

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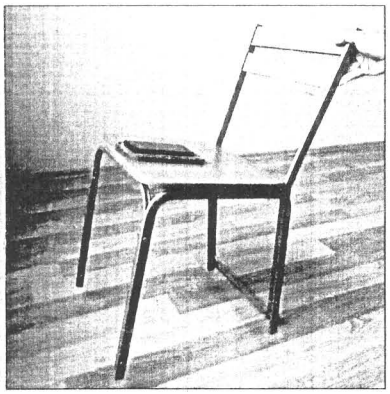

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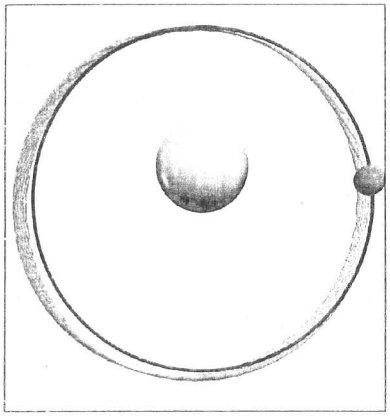

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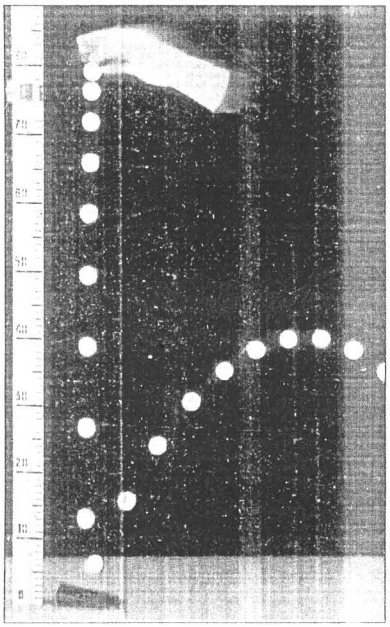

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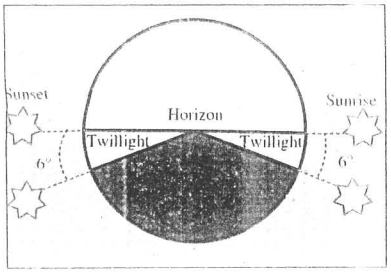

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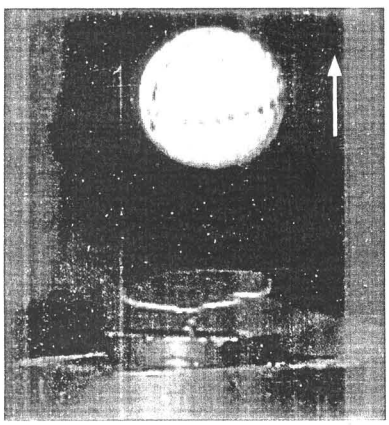

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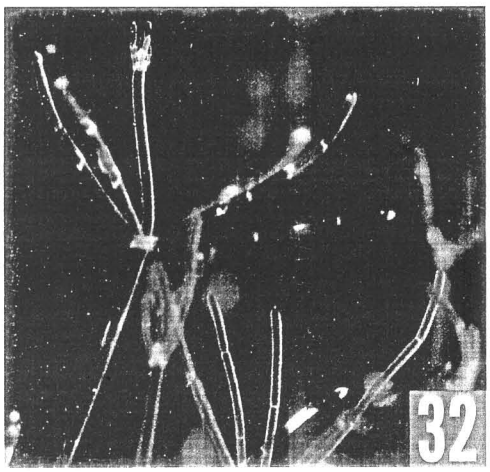

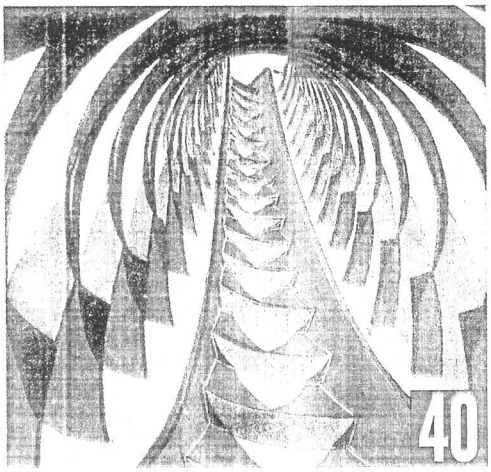

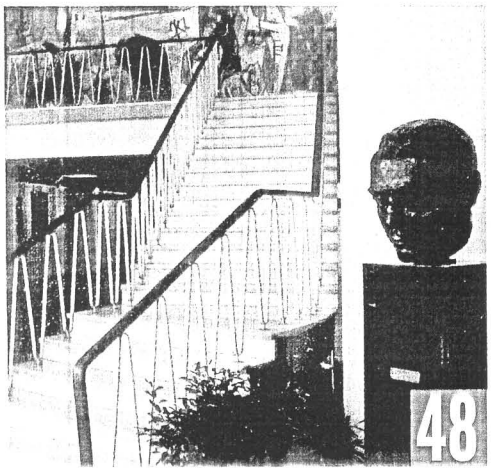

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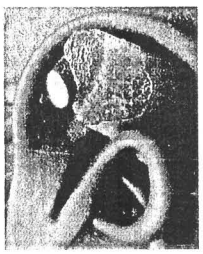

ON THE COVER: Southern bull kelp, like the one shown here, nor on rocks in intertidal zones, but it can also survive for years floating open ocean. By passively drifting on ocean currents, the kelp has c much of the Southern Hemisphere. A new study shows that it can to Antarctica, a feat previously assumed to be impossible. For mo work and what it means for Antarctic ecology, see the story on **pa** (Photo © Avenue, CC BY-SA 3.0.)

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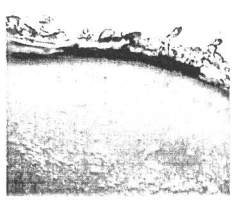
Physics in song

Physicists in the US enjoyed prestige and substantial government funding following World War II. But not every physicist saw the federal largesse as a positive. One critic, Arthur Roberts, expressed his worries in song. PHYSICS TODAY's profile of Roberts includes audio clips from his 1947



Water war

Around 2010, two research groups modeled the behavior of liquid water cooled far below its typical freezing point. The simulations yielded opposite results, and a bitter feud began. PHYSICS TODAY's Ashley Smart explains how a hidden coding error fueled an intense dispute in physical

MARK HALPERN

A close second

In 1990 the *COBE* satellite made the first precision measurement of the cosmic microwave background's energy spectrum. Lesser known is the sounding rocket, *COBRA*, that nearly beat *COBE* to the punch. PHYSICS TODAY details the experiment that confirmed *COBE*'s Nobel-winning mea-

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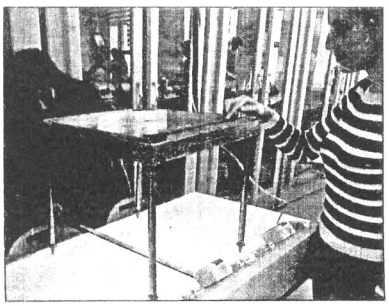

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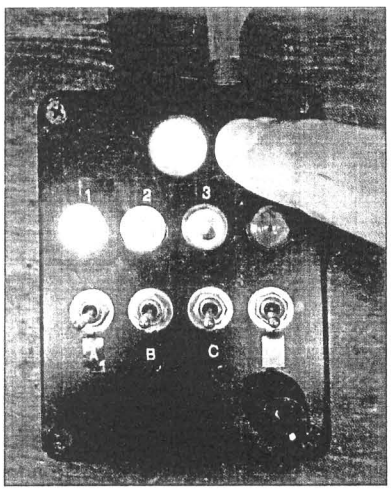

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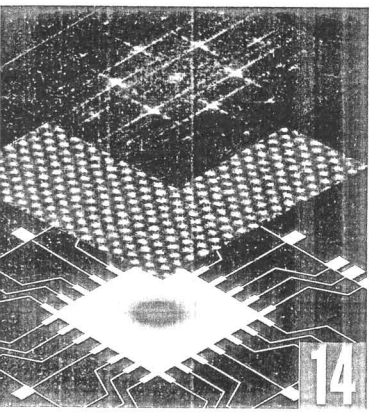

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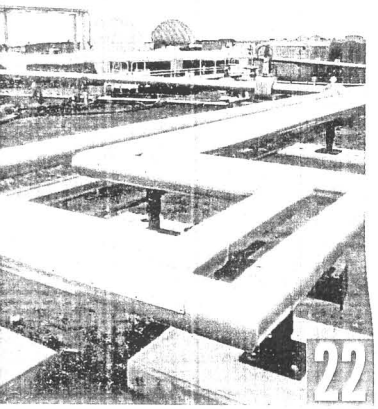

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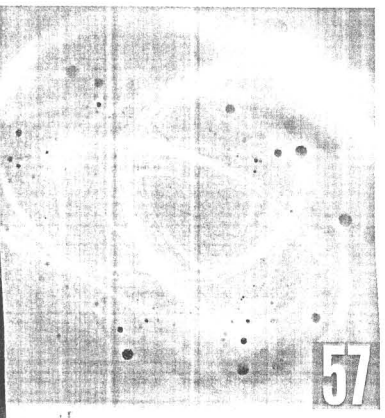

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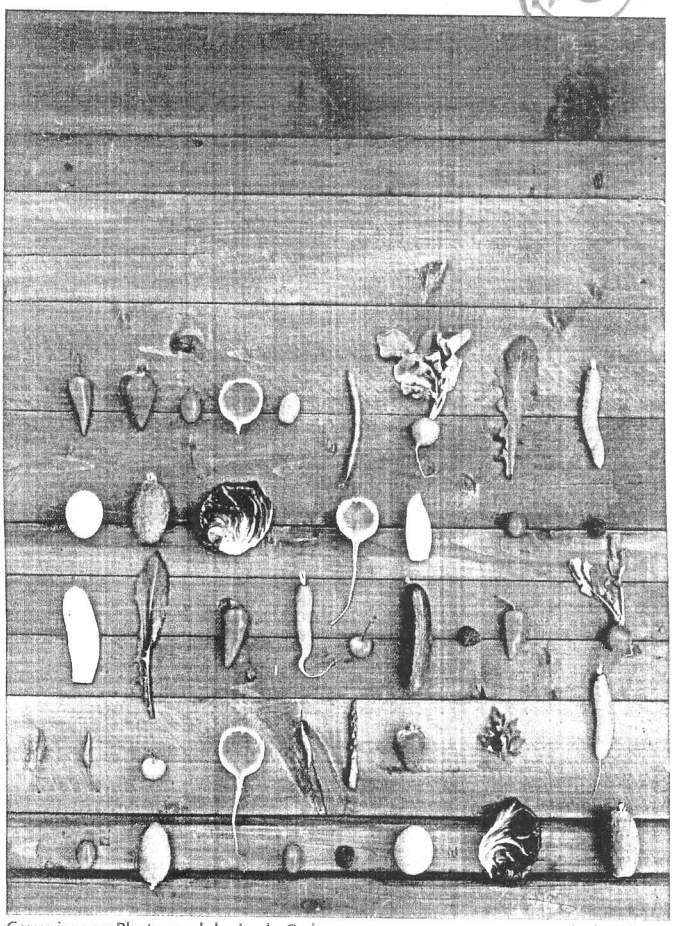

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Clare Finney adopted a vegan diet for a week. Read her reactions to find out how she fared.

Organic farming and food production is hardly new, as **Gregory Barton** explains in a new history.

At Summer Solstice, **Nick Robins** argues that environmentalists should use the cycle of the seasons to strengthen our campaigning.

Two leading proponents of localism, **Wendell Berry** and **Helena Norberg-Hodge**, talk about why it matters.

PLUS: We join Satish Kumar in his kitchen to talk about the political, social and cultural power of food for the first episode of **Resurgence Voices**, a new **podcast** from The Resurgence Trust. Download at **https://resurgence.podiant.co** and wherever you get your podcasts.

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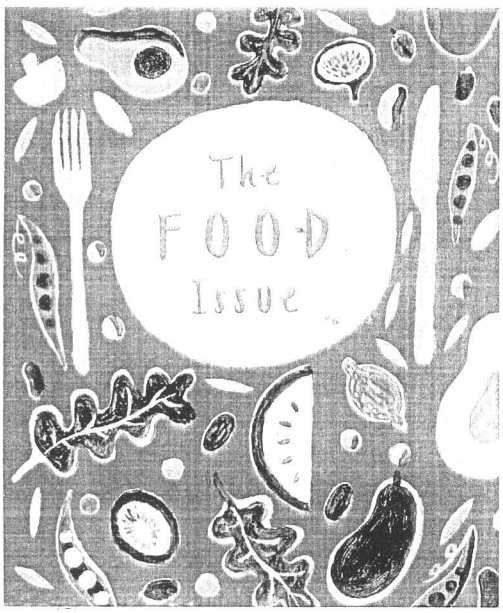

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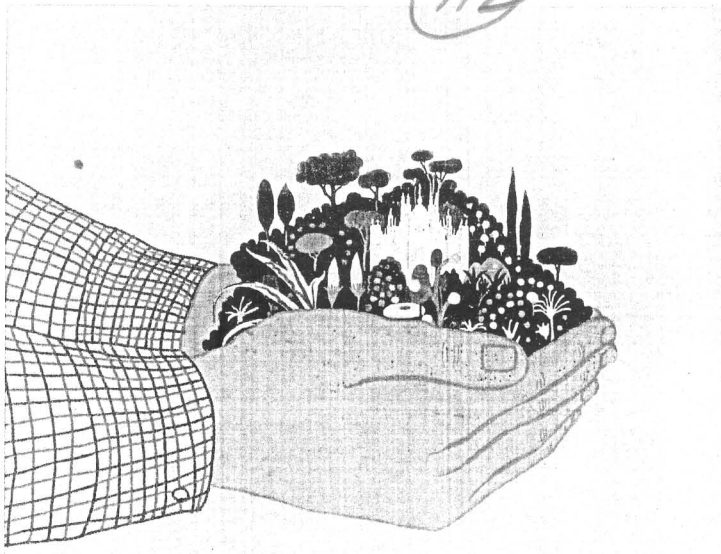

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Sense of belonging: Andrew Rumsey on a place for the parish

Natural patterns: in our online gallery, some of the Nature-inspired work of Amy Genser

Coming soon to Resurgence Voices: Matt Harvey performs some of his poetry and Marianne Brown interviews Lisa Schneidau in our podcast Resurgence Voices: https://resurgence.podiant.co/

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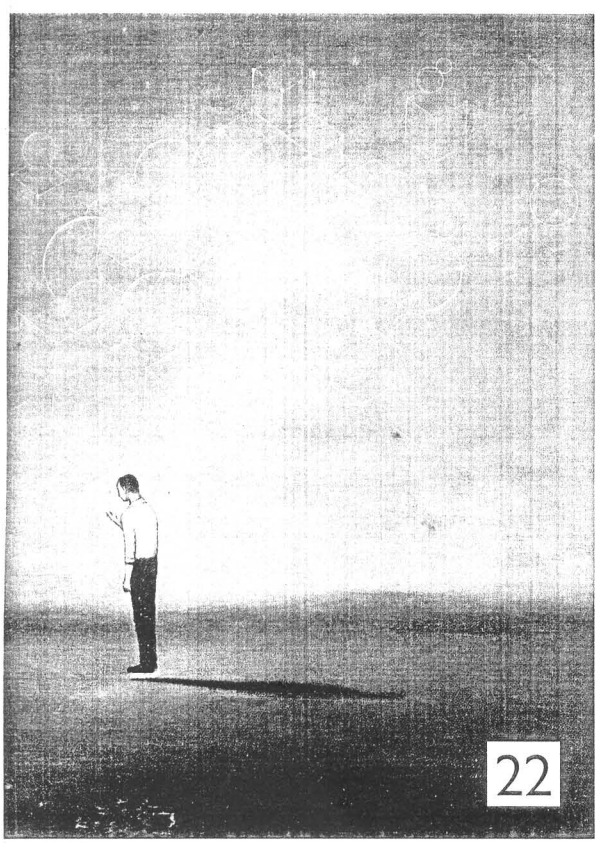

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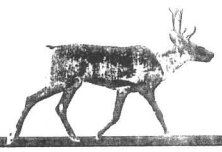

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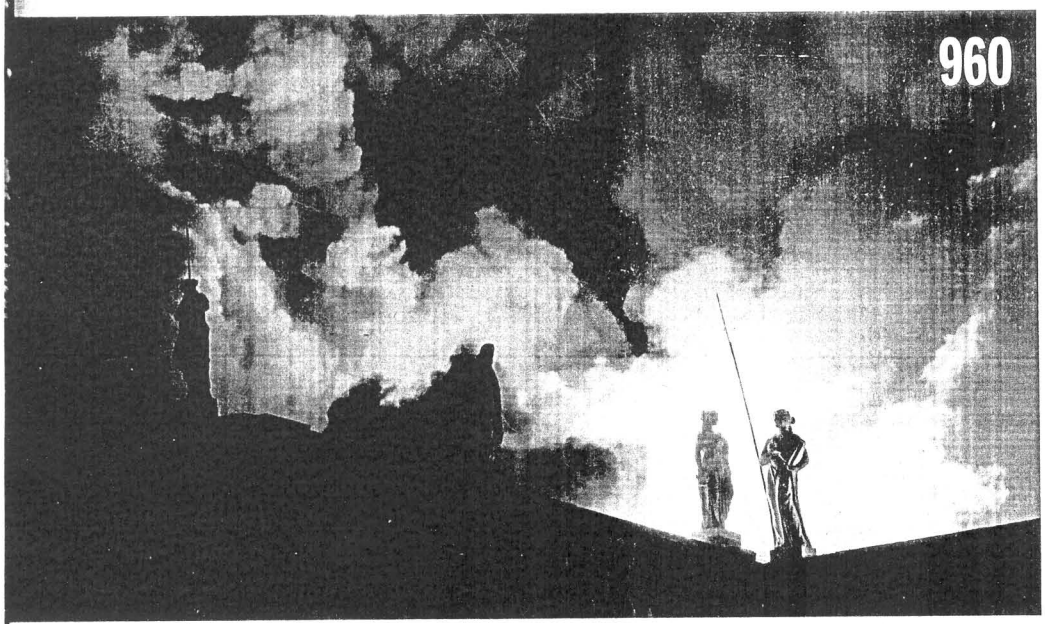

Fire destroys priceless specimens at the National Museum of Brazil.

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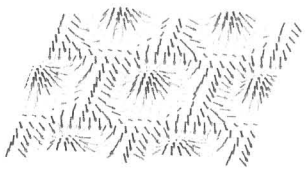

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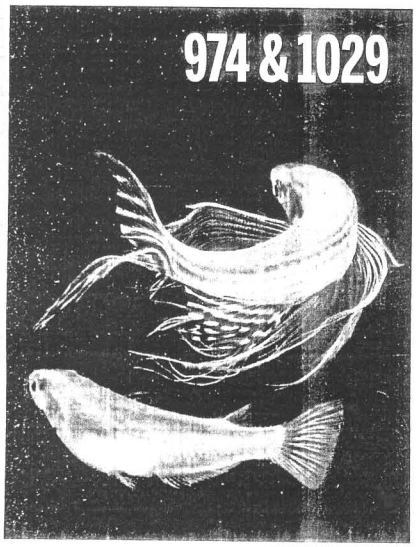

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Photo: © Joe Riis

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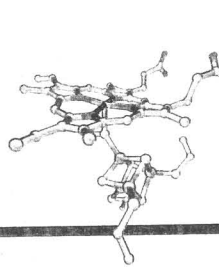

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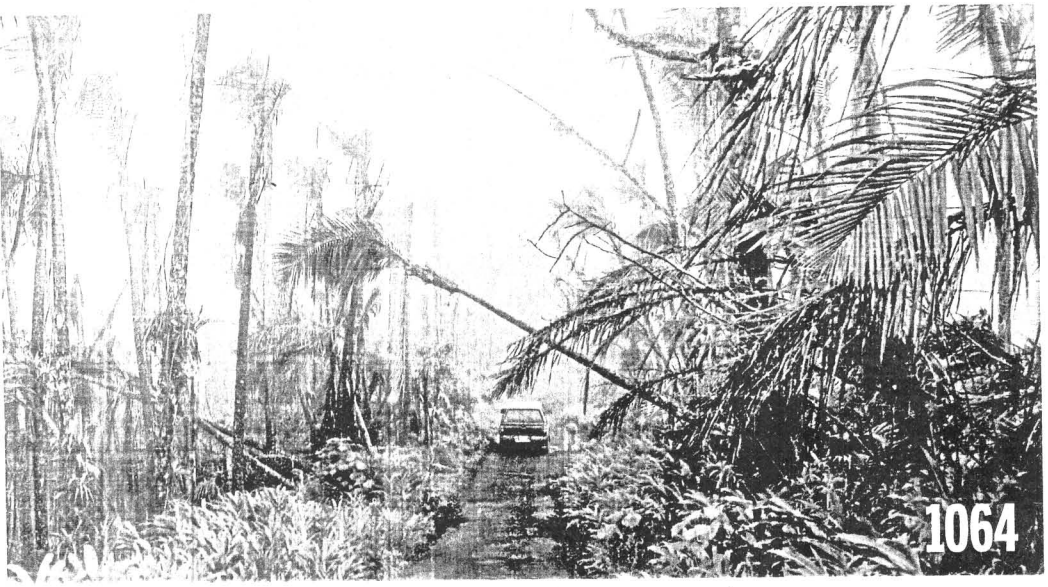

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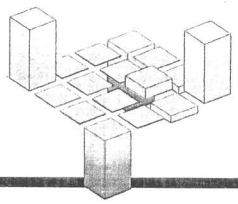

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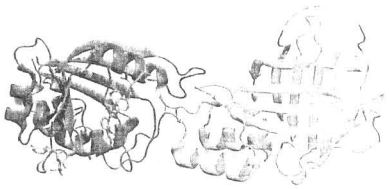

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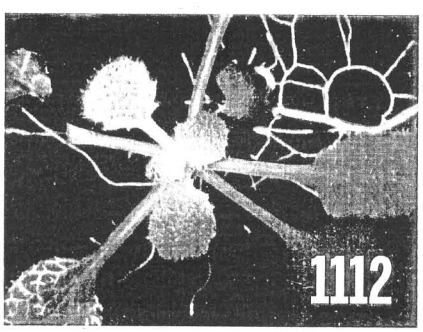

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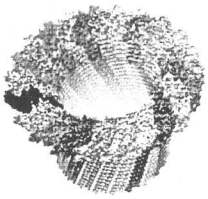

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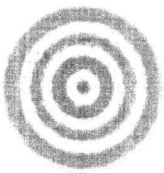

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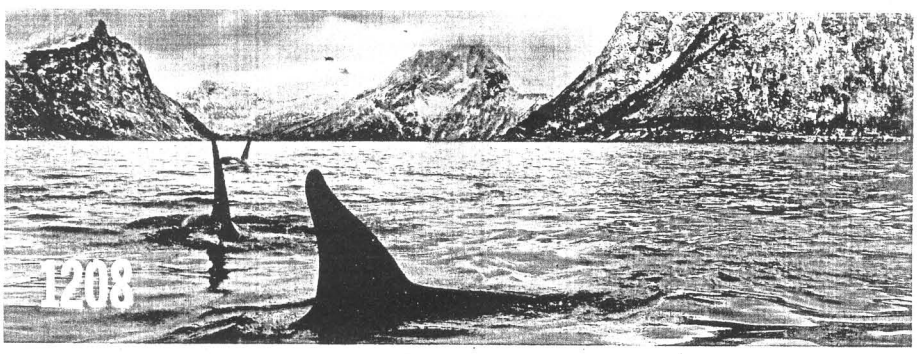

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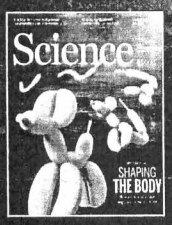

In balloon art, the sculptor exerts precise forces at specific sites to make identifiable body parts. Likewise, choreographed molecular mechanisms, albeit at a complex and tightly controlled level, enable a few seemingly identical starting cells to transform into a whole animal. This special issue highlights the regulatory mechanisms controlling gene expression, depicted in the background here as a heat map. See page 1330. *Graphic: FOREAL*

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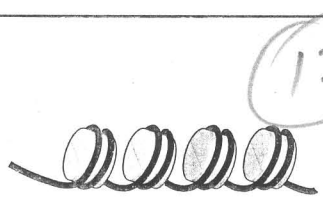

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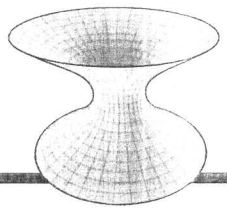

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Cassini's final wide-angle view of Saturn and its rings, taken on 13 September 2017, 2 days before the spacecraft burned up in the planet's atmosphere. The Sun is at an oblique angle on the far side of Saturn, which casts a dark shadow across the rings. This color mosaic was produced from multiple images taken with Cassini's Imaging Science Subsystem. See page 44. *Image: NASA/JPL-Caltech/Space Science Institute*

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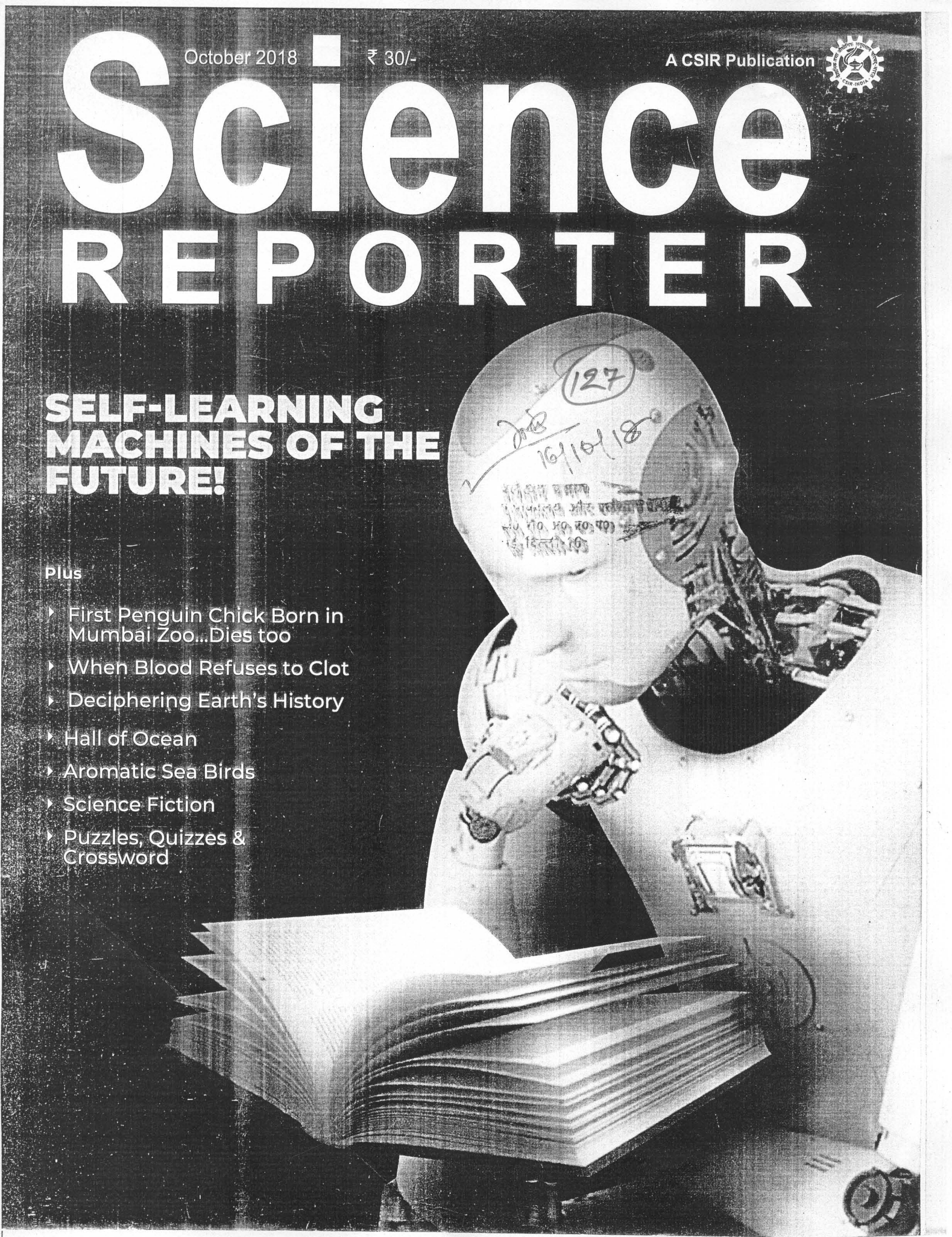

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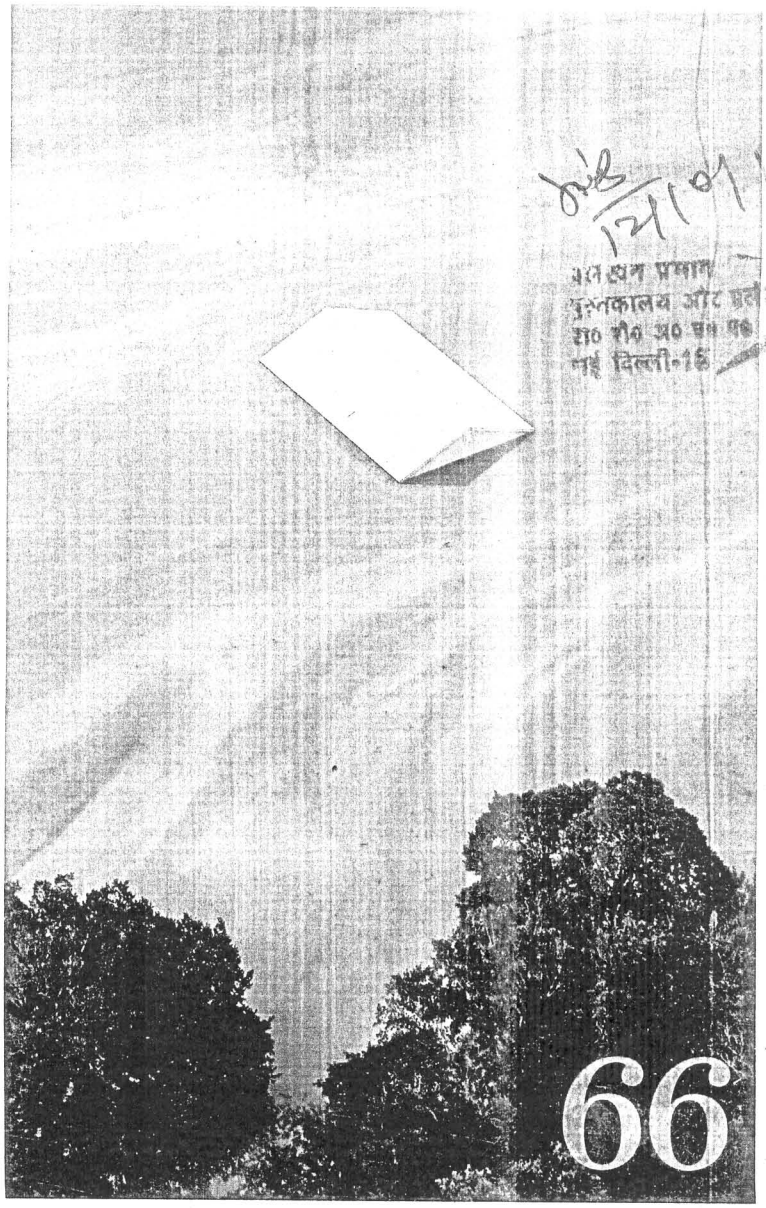

JABIN BOTSFORD Getty Images (flooding in Houston, Tex.)

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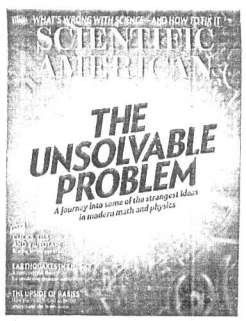
Three mathematicians spent several years and 146 pages proving that the "spectral gap" problem—the question of whether materials have a gap between their lowest energy level and first excited state—is undecidable. To reach this conclusion, the researchers investigated the computer science of Turing machines, the mathematics of bathroom floor tiles and the foundations of quantum physics. Illustration by Mark Ross Studios.



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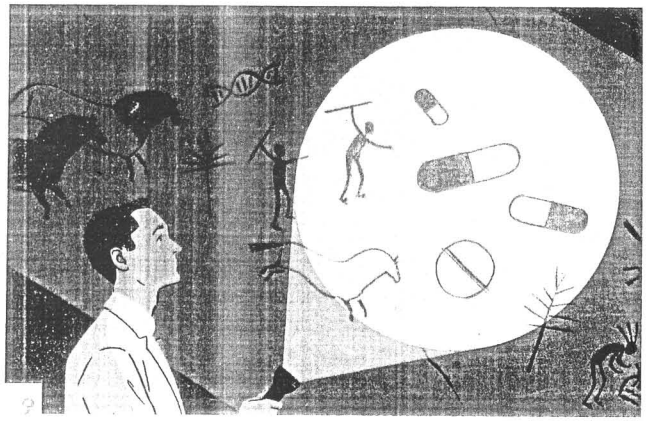

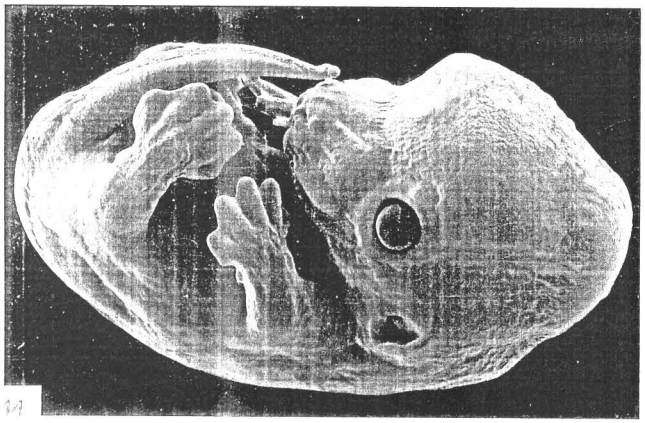

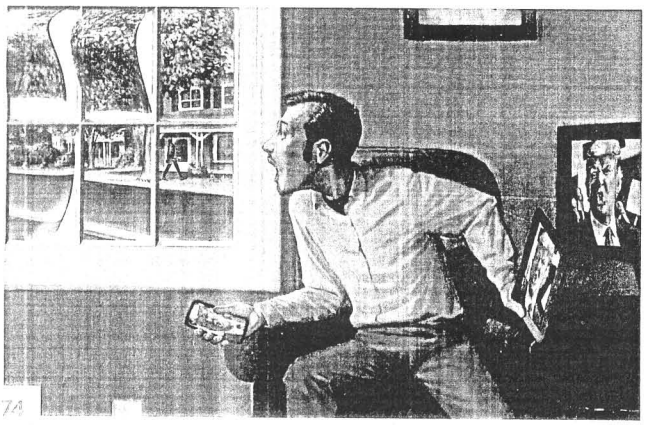

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Scientific American reports that the multitude of universes predicted by string theory may not exist after all, a suggestion that has sparked controversy among physicists.
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a symposium on

engaging with Gandhi, his

formulations, practice and life

Oct 2018

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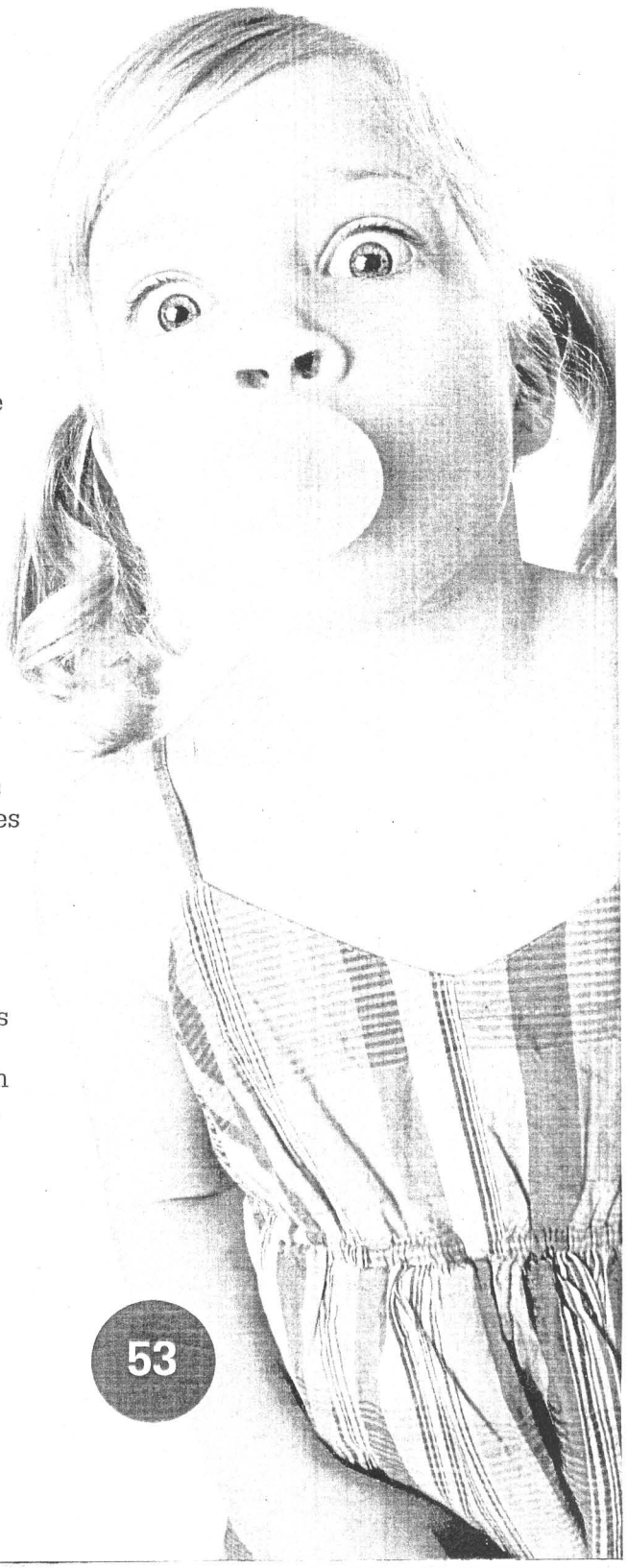

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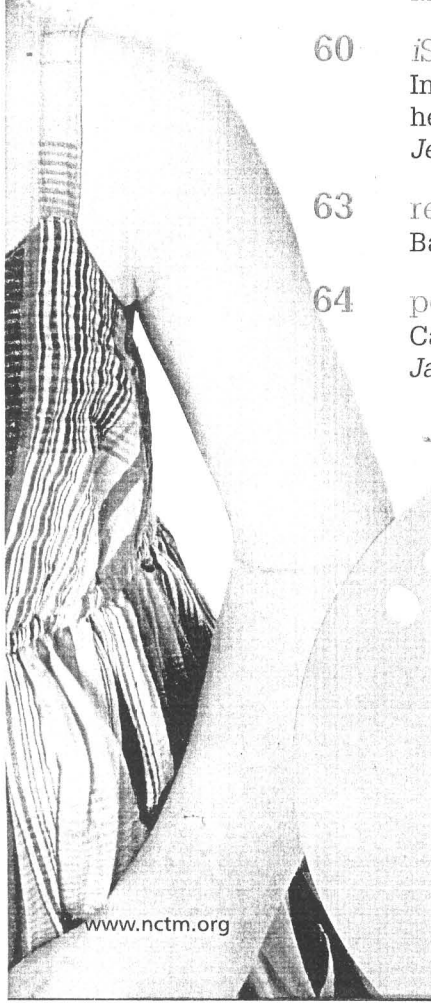

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Reforms in Education to Turnaround Economy

Bhagwati Prakash Sharma* and Jaya Sharma**

Education is key to facilitate and enrich the socio-cultural, moral, scientific, technological, economic and overall development of any society or nation. It is a potent and purposive intervention to facilitate, object oriented learning, invoke utilitarian skills, consolidate moral values, bring advancement in scientific and technical know how, enhance individual and social commitments, reinforce one's faith in the self and shape the individual as well as societal behavior of generations to come. So, education acquires key significance in a country like India, home to one fifth of the global youth and endowed with, one of the world's largest higher education system. But, India needs to take an urgent call for low employability and low innovativeness of its passing out graduates, as well as for low international ratings, whereby India is able to attract only 0.61% of international students[1] with no place in 50 top international destinations for higher education. Besides, India has a very poor, 60th rank in the global innovations index (GII)[2].

Quality of education has wide ramifications over the economy, including the manufacturing, trade, commerce, employment, national security, human development and overall socio-cultural environment. Country's share in the world manufacturing has today plunged to a mere 2.1% vis a vis 22% of China, 17.6% of the US and 7% of the Japan[3]. Japan has mere 1.6% of world population and seven per cent share in world manufacturing. While India has 17.8 % of world population and mere 2.1 per cent share in world manufacturing. In world ship-building, India has less than 1.0% share, vis a vis 26% share of South Korea having 5% of India's population as well as area. Thus, inspite of being 4th largest steel producer in the world India lags far behind Korea in the ship-building due to poor education, research and training in the maritime engineering in country. Same holds true across a broad range of sectors. Commenting upon such a poor state of affairs the information technology industry veteran and Chairman of Manipal Global Education, TV Mohandas Pai has opined that, India failed to derive the demographic dividend as it's saddled with crores of youngsters with low skills unsuited to the economy.[4] He feels that there is a need to improve quality of education and stop undue regulation and control of education.[5] Indeed, today India stands 60th in the global innovations index (GII), at 100th place in Global Hunger Index[6] and at 131st place in the Human Development Index[7]. Taking cognizance of such a poor state of education, nutrition and health in the country the Secretary-General of the industry body ASSOCHAM, DS Rawat has rightly

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Foundation of Creating an Ideal Society for World Peace through Value Based Universal Education System: A Rethinking on the Occassion of 150th Birth Anniversary Celebrations of Mahatma Gandhi

S N Pathan*

Value Based Education means the education which is imbibed with human values. It can be further explained that there are certain ethical and moral time-tested human values which have been universally accepted by the societies across the world. Value Based Universal Education is aimed to change the routine mindset of the students and make them good human beings. It makes the students ready for any kind of sacrifice and dedicate themselves and these Universal Values become the part of their life.

Mahatma Gandhi's Thoughts for Education

While describing the meaning of education Mahatma Gandhi said, "Education does not mean Literacy only. It is not even the beginning of education." Further, Mahatma Gandhiji added that education is a medium which makes the development of the child through his/her spiritual development. Education must lead the physical development, intellectual development and development of a soul which will make the students good human being.

Education must Create Good Human being

Another Noble son of India Swami Vivekananda was of the opinion that education explores the hidden talent of the individual and develops that latent seed into a huge tree. Continuous development of the individual means education & ultimately education develops an individual into a good human being. The great educationist Sarvepalli Radhakrishnan was of the opinion that education means National Integration. The concept of National Integration must be inculcated amongst the students through education. Even the Kothari Commission which was constituted to decide the Indian education policy emphasized that education brings Nationalism, brotherhood and ultimately National development.

Challenge before Universities

Therefore, it is the great challenge before the educational institutions and universities to fulfill these goals of the education and imbibe these universal values amongst the students. But the Indian education system has totally failed to achieve these goals due to the existing Macaulay-

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Mahatma Gandhi's Philosophy of Peace: Present Relevance

Ramkishan M Manjre* and Anuradha H Patil**

The world will live in peace, only when the individuals composing it make up their minds to do so

—M.K. Gandhi

Father of the Nation, Mahatma Gandhi was the man of simple living and high thinking. Eminent leader in the realm of the world history much associated with peace and non-violence will always be remembered as a symbol of peace and truth. Peace was central to Gandhi's political, social and religious philosophy and demonstrated to the world, the supreme method of achieving world peace.

Mohandas Karamchand Gandhi, popularly known as Bapu or Mahatma Gandhi was born on 2nd October, 1869 at Porbandar, Gujarat. 2nd October is celebrated as Gandhi Jayanti in India and as 'International Day of Non-Violence' all across the world as he was sermonizer of non-violence throughout his life. He started Satyagraha movement not only for India's freedom but also to resolve all conflicts in human life.

For the world's present and future generations, whole life of Mahatma Gandhi has been set as an ideal example of peace, non-violence, social harmony and communal unity, simplicity and firmness. Every year the world celebrates 'International Day of Non-violence' with lots of preparations. The aim of celebrating this occasion is to pay tribute to Mahatma Gandhi as well as to let our future generations know about the struggle made by Mahatma Gandhi in order to establish socio-economic equality, communal equality, *sarva dharma samabhav*, democracy of enlightened majority.

Gandhiji's Philosophy of Peace

The Gandhian philosophy of peace and harmony is based on the concept of the unity in existence. It can be traced back to Yajurveda. The vedantic idealism which is the basis of Gandhian approach teaches the supremacy of the values of eternal truth and justice (Roy, 1966). Vinoba Bhave, a fervent follower of Gandhi explains Gandhian philosophy of peace quoting a Sansktrit Sholka. (Pyarelal, 1959)

वेदान्तो विज्ञानं विश्वासष्चेति भाक्तयसतिस्यः
यासां स्थैर्य नित्य शान्ति समृद्धि यविश्यतो जगतिं

It means that *Vedanta, vijnan* and *vishwas* are the three forces which when fully and firmly established will inaugurate an era of perpetual

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Higher Education Commission of India a Gateway to Meddling: A Critical Viewpoint

M Anandakrishnan*

A draft Bill with the title "Higher Education Commission of India (Repeal of University Grants Commission Act) Act 2018" was announced by Government of India on 28 June 2018. The draft bill seems to be an attempt to take full control of higher education sector. Prior to 1976 Higher Education was a state subject. In 1976 by 42nd amendment to our Constitution, Higher Education was made a concurrent subject. Now this Bill indicates that the Government is trying to make it fully a central subject.

Pliable Composition

The Commission shall consist of a Chairperson, Vice Chairperson and twelve other Members to be appointed by the Central Government. The Secretary of the Commission will act as the Member-Secretary. The Chairperson shall be selected by a Search-Cum-Selection Committee, consisting of Cabinet Secretary (Chairperson), Secretary Higher Education, and three other eminent academicians to be co-opted as members.

Of the twelve members of the commission, (a) three members will represent Central Government namely: Secretary of Higher Education, Secretary of Ministry of Skill Development and Entrepreneurship and Secretary Department of Science and Technology. (b) Two Chairpersons of other Regulatory Bodies of Education, namely Chairperson of All India Council for Technical Education and Chairperson of National Council for Teacher Education; (c) Two Chairpersons of the Executive Council/ Governing Body of accreditation bodies; (d) Two serving Vice Chancellors of Universities known for their academic excellence; (e) Two serving Professors of Universities, reputed for research and knowledge creation; (f) One doyen of Industry. The above composition shows that HECI will have only five members outside the official system.

Scope for Interference

The Commission shall ensure maintenance of academic standards in the Higher Education system in the Country by :

(a) specifying learning outcomes for courses of study in higher education;

(b) laying down standards of teaching /assessment/research or any aspect that has bearing on outcomes of learning in higher educational institutions including curriculum development, training of teachers and skill development;

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Reflective and Humane Teaching: Implications for Revisiting Teacher Education Programme

Asha Pandey*

Teacher education is a major formal operation for preparing teachers with adequate competencies and motivational orientations. This relates mostly to the initial level of teacher preparation for school levels. In fact, competencies for effective teaching are needed at all levels of education including the formal and non-formal. NCTE, an apex level regulatory body for teacher education in India has been issuing guidelines and instructions in this regard at various points of time — before and during the processes of recognition and accreditation. In the new framework issued by NCTE in 2007, various competencies were mentioned along with those that are associated with basic humane approach for preparation of teachers. This document of NCTE was preceded by NCF, 2005, developed by the NCERT in order to advocate the adoption of constructivist paradigm in school education. These two documents have been the landmark references for revisiting teacher education in our country. Despite the strong plea made through these documents for transforming the orientation of teacher education institutions, little or no transformation appears in the content and strategies in respect of teacher preparation as of now.

In the present paper an attempt has been made to direct attention towards the concern for reflective teaching and reflective teachers to undertake the task of designing, implementing, evaluating and monitoring teacher education programs. The paper also examines some conceptual framework of effective teaching and its various ingredients to bring a necessary change in our traditional approaches.

Refelective Teaching- What It Means?

Morris L. Bigge in early 1970s made a comprehensive analysis of various cognitive levels of teaching and learning by referring to three specific cognitive levels — memory, understanding and reflective. Later, he also added the fourth level which he called autonomous level. In his analysis memory level is the lowest level of cognition and as such it implies the lowest level of teaching and learning. The second level which he calls understanding level represents development of relational structures in order to translate, explain and interpret various information inputs.

In this frame of reference he identifies reflective level teaching being an exemplification of the highest level of cognitive interchanges between the teachers and the learners. It invariably implies exploratory as well as explanatory forms of understanding with a focus on critical components to share meanings and patterns of thought. In other words, it represents

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Rig Veda

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Recent advances in mathematics textbook research and development

Guest Editors: Gert Schubring · Lianghuo Fan

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