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இலிங்குமங்கோணம் கவர்ன்மெண்டு காலேஜ் பிரதம ஆசிரியராயிருந்த ராவ்பகதூர் P.V. சேஷு அய்யர், B.A., L.T. அவர்களாலும், சென்னை பச்சையப்பன் கலாசாலை ஹெஸ்குல் பிரதம ஆசிரியர்

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Elementary Mathematics, Part I இன் மொழி பெயர்ப்பு.

மொழி பெயர்ப்பாசிரியர் :

சேலம் முனிசிபல் காலேஜ் கணித போதகாசிரியர், S. சிவராமன், B.A., L.T.

சைதாப்பேட்டை உசர்ஸ் காலேஜ் கணிதபோதகாசிரியர் S. பாலகிருஷ்ண அய்யர், B.A., L.T., அவர்களுடைய முன்னுரையுடன் கூடியது.

Approved as a Text-Book suitable for School use,

vide Fort St. George Gazette, Part I-B, p. 545, dated 1-11-27.

(முதல் பாகம்)

பொருளடக்கம்.

I. எண் மானபு: எண் குறிப்பும்:—எண்கள்; இலக்கங்களால் எண்களைக் குறித்தல்; எண்களின் சம மதிப்பும் ஸ்தான மதிப்பும்; ரோமன் வழி. II. கோடுகளும் புள்ளிகளும் நீள அளவையும்:—கூறு; ஸர். பெய்கள்; கோடுகள்; புள்ளிகள்; கோடுகளின் வகைகளும் கோடுகளைப் பிரிக்கும் விதமும்; புள்ளிகள் குறித்தலும் கோடுகள் இழுத்தலும்; நீள அளவு; டிவைடர்களின் உபயோகம்; எண்களை நீளத்தால் குறித்தல். III. கூட்டல்:—கூட்டலின் அர்த்தமும் உபயோகமும்; கூட்டலைப்பற்றிய ஓர் உண்மை; கூட்டலைப் படத்தால் காண்பித்தல்; அடைப்புக் குறிகள்; கூட்டல்; பெரிய கணக்குகள்; கழித்தல்; கழித்தலைப் படத்தால் காட்டுதல்; பலவகை கழித்தல் வழிகள்; கூட்டல் கழித்தலைப்பற்றிய சில விதிகள்; கலப்புக் கூட்டலும் கழித்தலும். IV. பெருக்கல்:—பெருக்கலைப் படத்தால் காண்பித்தல்; ஒரு ஸ்தான எண்ணால் பெருக்கல்; பாக்டர்களால் பெருக்கல்; எந்த எண்களைக் கொண்டும் பெருக்கல்; பெருக்கலில் குறுக்கு வழிகள். V. வகுத்தல்:—வகுத்தலைப் படத்தில் காட்டுதல்; ஒரு ஸ்தானத்தால் வகுத்தல்; பாக்டர்களால் வகுத்தல்; 10, 100 முதலிய எவ்வகையில் வகுத்தல்; நீள வகுத்தல்; வகுத்தலின் இன்னொரு அர்த்தம்; சில பெருக்கல் வகுத்தல் விதிகள்; பெருக்கல் வகுத்தலில் சில குறுக்கு வழிகள்; ஒன்பதாண்டுகள் நீக்குதல். VI. பலவின் வெண்கள்:—அளவை வாய்ப்பாடுகள்; காணாய அளவுகள்; சிறை அளவுகள்; நீள அளவு; பிடித்தல் அளவு; கால அளவு; கால அளவு; எண்ணிக்கை அளவு; இனமற்றதல்; பலவின் வெண் கூட்டல்; கழித்தல்; பலவின் வெண் பெருக்கல்; பலவின் வெண் வகுத்தல். VII. கோணங்களும் அவற்றின் அளவும்:—திசை, திசைமாற்றம்; கோணம், கோணங்களை ஒப்பிட்டுப் பார்த்தல்; கோணங்கள்; சதுரங்களும் செவ்வகங்களும்; வட்டங்கள்; கோணங்களின் அளவு; கோணங்களின் வகைகள்; ப்ரொட்டாக்டரைக் கொண்டு கோணங்களை வரைதல்; ஒரு புள்ளியிடத்தில் உள்ள கோணங்கள். VIII. டெஸிமல்கள்:—டெஸிமல்களின் அர்த்தம்; டெஸிமல் குறிப்பில் ஸ்தான மதிப்பு; இரண்டாவது டெஸிமல் ஸ்தானம்; டெஸிமல் குறிப்பு பொது விவரம்; ஒரு டெஸிமல் ஸ்தானமுள்ள எண்கள்; டெஸிமல் கூட்டல்; டெஸிமல் கழித்தல்; எந்த எண்களையும் கழித்தல்; 10, 100 முதலியவைகளால் பெருக்கல்; ஒரு ஸ்தானமுள்ள முழு எண்ணால் பெருக்கல்; ஒரு ஸ்தானமுள்ள முழு எண்ணால் வகுத்தல்; பல ஸ்தான முழு எண்களால் பெருக்கல்; பல ஸ்தான முழு எண்களால் வகுத்தல். IX. உயர்ந்த பொது அளவும் தாழ்ந்த பொது மடங்கும்:—அளவும் மடங்கும்; பொது அளவும் மடங்கும்; உயர்ந்த பொது அளவும் தாழ்ந்த பொது மடங்கும்; பாக்டர்களால் இரண்டு அல்லது இரண்டிற்கு மேற்பட்ட எண்களின் உ. பொ. அ. ம. தா. பொ. ம. உம் கண்டுபிடிக்கும் வழி; உ. பொ. அளவைக் கண்டுபிடிக்கும் பொது வழியைப் படத்தால் காட்டல்; உ. பொ. அ. பொது வழி. X. சாதாரண பின்னங்கள்:—பலவின் அளவுகளின் பின்னங்கள்; ஒரு கான்சீட் அளவை இன்னொரு கான்சீட் அளவின் பின்னமாகச் செலுத்தல்; சுமாரான பின்னங்கள்; சுமாரான பின்னங்களைப் படத்தால் காட்டுதல்; பின்னங்களின் சமத்துவம்; தாழ்ந்த

உறப்புடன்; பின்னங்களை ஒப்பிடுதல்; பின்னங்களின் கூட்டலும் கழித்தலும்; ஒரு சாதாரண பின்னத்தை ஒரு முழு எண்ணால் பெருக்கல்; சாதாரண பின்னத்தை ஒரு முழு எண்ணால் வகுத்தல்; ஒரு பின்னத்தில் பெருக்கல்; பின்னத்தின் பின்னம்; ஒரு பின்னத்தில் வகுத்தல்; ஒரு எண்ணை ஒரு குறிப்பிட்ட டிஸிமலினால் உள்வாங்கி மாற்றல்; பின்னங்களைச் சுருக்கல். IX. வாடிக்கை முறை:—பலமாதிரிக் கணக்குகள். பரிட்சைக் கேள்விகள். விடைகள்.

முதல் பாகம் 1-வது வகுப்புக்கும் 1-வது பாரத்திற்கும், கிரௌன் 300 பக்கங்கள், விலை அணு 12.

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(இரண்டாம் பாகம்)

பொருளடக்கம்.

பரிட்சைக் கேள்விகள். I. டெஸிமல்களின் பெருக்கலும் வகுத்தலும்: ஒரு ஸ்தான டெஸிமல் எண்ணால் பெருக்கல்; சுமாரான பரிட்சைகளை; எந்த டெஸிமல் எண்ணால் பெருக்கல்; டெஸிமல்களால் வகுத்தல்; சுமாராய்ச் செல்லல்; சாதாரண பின்னங்களை டெஸிமல்களாக மாற்றல்; டெஸிமல்களை சாதாரண பின்னங்களாக மாற்றல். II. சாதாரண, ரேஷியோ முதலானவை: சராசரி; ரேஷியோ; மாறாத ரேஷியோ; ரேஷியோவின் உபயோகங்கள்; ப்ரோபர்டன்; வாய் கலப்படம்; வருமான வரி; கடன் மிகுதல். III. பாய் பளவு; பாய்ப்பளவு; செவ்வகங்கள்; இக்கிலிஷ் பாய்ப்பளவுகளும் ப்ரெஞ்சு பாய்ப்பளவுகளும்; பாய்ப்பளவு வாய்ப்பாடுகள்; பிளான் வரைதல், அதாவது அமைப்புகளும் வரைதல்; தரையின் பாய்ப்பளவும் நாற்காலிகளின் பாய்ப்பளவும்; கட்டிட காகிதத்தின் உபயோகம். IV. பொது எண் கணக்கு—சமீகாணங்கள்: அங்க கணிதமும் பீஜ கணிதமும்; சில பெயர் விளக்கங்கள்; சமீகாணங்கள்; இன அங்கங்கள்; அடைப்புக் குறிகள் நீக்குதல். V. முக்கோணங்கள்: அவற்றின் பக்கங்களும் கோணங்களும்: முக்கோண விரிப்பு; முக்கோணங்களின் கோணங்கள் பக்கங்களுக்குள் சம்பந்தங்கள்; ஒரு புள்ளியிலிருந்து சிபந்தனைக்கிணங்க மற்றொரு புள்ளி குறித்தல்; இரண்டு புள்ளிகளிலிருந்து சிபந்தனைகளுக்குக் கிணங்க மற்றொரு புள்ளி குறித்தல்; கொடுக்கப்பட்ட அளவுகளைக் கொண்டு முக்கோணம் வரைதல்; வட்டங்களின் சில தன்மைகள்; முக்கோணங்களின் வகைகள்; ஓர் புள்ளியிலிருந்து ஓர் கோட்டிற்கு பெர்பெண்டிகுலர். VI. கோடுகளையும் கோணங்களையும் ஒருசமயமாகக் களாக்கல்: இருசம பக்க முக்கோணங்களின் சில தன்மைகள்; கோடுகளை இருசம பாகங்களாகக் குறுத்தல்; கோணங்களை இருசம பாகங்களாகக் குறுத்தல்; கார்ட்டோயும் வட்ட பாகங்களையும் இரண்டு சம பாகங்களாகக் குறுத்தல்; பெர்பெண்டிகுலர்கள் இருத்தல்; விரிமெட்டரி. பலமாதிரிக் கணக்குகள்; முதல் பாய் பாடங்களில் புதிய கணக்குகள்:—கூட்டல் கழித்தல்; பெருக்கல்; வகுத்தல்; பலவின் எண்கள்; கோணங்களும் வட்டங்களும்; டெஸிமல்கள்; உயர்ந்தபொது அளவும்; தாழ்ந்த பொது மடங்கும்; சாதாரண பின்னங்கள்; பலமாதிரி இரண்டாம் பாய்ப்பாடங்களில் பலமாதிரிக் கணக்குகள். பரிட்சைக் கேள்விகள். அறுபத்தாம். விடைகள்.

இரண்டாம் பாகம் 2-வது பாரத்திற்கு, கிரௌன் 208 பக்கங்கள். விலை அணு 10.

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(மூன்றாம் பாகம்)

பொருளடக்கம்.

பரிட்சைக் கேள்விகள்; அத்தியாயம் I. நாற்றுக்குக் கணக்கிடலும் அதன் பிரயோகங்களும்; II. ருண எண்களும் பீஜ சமீக்கைச் சேர்க்கைகளும்; III. சுமார்தாக் கோடுகளும் அவற்றின் தன்மைகளும்; IV. படக் குறிப்புகள்; V. ப்ரோபர்டன்—நோனதும் மாறானதும்; VI. முக்கோணங்களின் சர்வ சமத்துவம்; VII. முக்கோணங்கள், சுமார்தா நாற்பக்கங்கள், வட்டங்கள் இவற்றின் பரப்புகள்; VIII. பருமன் அல்லது கன அளவு; IX. தனிச் சமீகாணங்களும் அவற்றிற்குக் கொண்டுவிடும் யோசனைக் கணக்குகளும்; X. பலவகைக் கணக்குகள்; பரிட்சைக் கேள்விகள்; பலமாதிரிக் கணக்குகள்; விடைகள்; பலவின் அளவு வாய்ப்பாடுகள். Cr. 8vo. 300 pages. விலை அணு 12.

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STUDIES IN SANGAM HISTORY

By Prof. V. RANGACHARYA, M.A.,

Presidency College, Madras.

(Continued from p. 102.)

RELIGIOUS DATA IN THE

SILAPPADIKĀRAM.

SO far as religion is concerned, we have to note that the *Silappadikāram* belongs to a world and age radically different from that of the other "Sangam poems." There is no reference in the latter to the Jaina and Buddhist persuasions. The *Silappadikāram* on the contrary refers to both. Jainism in particular figures prominently. It is generally held that Ilāṅkō Adigaḷ himself was a Jaina monk. This belief is due to three facts. First, Adigaḷ, says Adiyārkkunallār, was a Jaina title. Secondly, Ilāṅkō is said to have lived after his renouncement of the world, in a *kōṭṭam*, and this word meant, according to the commentator, an Arha temple.

Thirdly, Jainism is dealt with very prominently in the course of the poem, showing the author's clear partiality to it. Kavunti Adigaḷ, who is a very important figure in the poem, is a Jaina, a worshipper of the Arhats. At Śrīraṅgam Kōvalaṇ meets, in company with Kavunti, the Chāraṇas who are experts in the teachings of the Jaina āgamic dharma with its three wonder-working powers.* All the names of the Jaina Arhats are enumerated. Jaina saints appear frequently in the story of Kōvalaṇ and preach the Jaina cult and mantras. The poem is saturated with Jaina lore. The

* Adiyārkkunallār points out that the Chāraṇas were traditionally in 8 varieties, viz., सल, जल, फल, पुष्प, तन्तु, चतुरङ्गल, सङ्ग and आकाश. The three wonder-working powers were सहसातशय, कर्म-क्षयातिशय and दैवीकातिशय. Specific references like these indicate the poet's intimate acquaintance with the advanced Jaina cult.

† See Nāḍu-kāṇ-kāḍai, lines 176-191, for all these names.

doctrines of birth and misery, the identity of happiness with birthness, the acquisition of this through the extinction of desires, the potency of the laws of *Karma* in determining the fortunes and experiences of men—are all Jaina in the main though they are not absent in other creeds. Again, though Kōvalaṇ and Kappali are represented as going to Viṣṇu's heaven after their earthly career is over, all the other important figures are represented to have sought emancipation from the ills and miseries of the world by embracing the lives of monks or nuns; and this is a peculiarly Jaina-Buddhistic idea. Kōvalaṇ's undeserved sufferings are attributed to his *karma* or past deeds. He is generous. He is nobility itself. He saves a Brahman from the fury of an elephant by risking his own life. He alleviates the misery of a Brahmanical lady who was deserted cruelly by her husband for her hastily killing a pet animal and unites the pair once again in happy conjugal life. He offers his own life to a *bhūta*, the deity of justice, on behalf of a rake. A person, so noble and so ideally pure, still becomes the victim of a highly tragic death. Why? The poet again and again explains that it was due to his past karma over which he had no control in this birth. The infatuation of the hero with Mādavi, his separation from her, his going to Madura, the fatal coincidence of his entry into Madura with the villainous activity of the goldsmith—every incident of the poem is explained by the poet as due to inexorable karma. Similarly Ilaṇḍiyan was an ideal king. He was an impersonation of justice. He had a pardonable pride in the reputation of his dynasty for justice. He was even more jealous than his ancestors in doing it. And yet he passed a thoughtless sentence of death on an innocent man, thus proving untrue to himself, to his reputation and to his family. What was it due to? The poet says: the law of karma. Similarly the incidents of every figure in the poem are

explained on this basis; and details are given of past births to justify the apparently unjustifiable and undeserved experiences of the present life. *Tiṭ for tat* in a chain of births is at the bottom of the whole philosophy. Again, the Jaina doctrine of *Ahimsa* figures conspicuously in the poem. It is eloquently illustrated by the speeches and practices of Kavunti Adigaḷ. The difficulties of the journey to Madura are explained, for instance, as those attendant on a journey across wet and cultivated lands or groves and therefore requiring great care, lest the animals living in the different spheres should be molested.

There are difficulties however in accepting the view that Ilaṅkō was a Jaina. Mahamahāpādhyāya V. Svaminathaiyar points out from a number of passages in the poem that Śeṇ-Kuṭṭuvaṇ and his brother were worshippers of Śiva. Again, Aḍiyārkkunallār's interpretation of Adigaḷ and Kōṭṭam is not above criticism. Adigaḷ was as much a Hindu title as the Jaina. Kōṭṭam means any temple, not necessarily that of Arhats alone. The poem itself refers to Kōṭṭams for Sūrya, Chandra, Airāvata, Bhūtas, etc. We have therefore reasons to believe that Ilaṅkō-Adigaḷ was only a royal saint who knew the fundamentals of the Jaina cult, but who was not necessarily a Jaina.

The fact is, the *Śilappadikāram* evinces a rare toleration and gives a clue to an age when all creeds—Jaina, Buddhistic, Śaivite, Vaiṣṇavite, Śāctaic, etc.—were equally active in the land. The poem is, as has been already said, not fertile in reference to Buddhism; but this does not mean that Buddhism was not prevalent. Madura is said to have had seven viḥāras (monasteries)* erected by Indra and resounding with the teachings of the invisible sages who preached from above the doctrines originally taught to the world by 'the Lord of Dharma' (அரு

* Nāḍu-kūṇ-kāḍai, lines 11—14

வோன்) at the foot of the lofty, five-branched, luxuriant 'Mābōdhi.' Kāveripūmpattanam* again is said to have had sacrificial halls of Vedic Brahmins, the temples of the four types of Gods and eleven Gaṇas, the Paḷlis of the Aṇavōr (i.e., the Jainas and Buddhists), the halls of the pauṇḍrists, etc. Mādavi is said to have bestowed Maṇimē-kalai at the altar of the Lord of the Bōdhi tree.†

The poem is, comparatively speaking, very full of paurāṇic legends. It is aware of the Rāmāyaṇa and the Mahābhārata and the doctrine of avatāra. Pukār, after Kōvalaṇ's departure from it, is compared to Ayōdhyā after Rāma's departure for the forest. The poem refers to Viṣṇu's measuring the world (as Trivikrama), the churning of the ocean by the Asuras and the Dēvas, the career of Krishṇa as charioteer. It refers to wars between the Dēvas and the Asuras. Viṣṇu is already in possession of all the attributes which are characteristic of the paurāṇic age. He is given such beautiful epithets as கீலமேனி கெடியோன், மாயோன், கீலம்கடந்த கெடுமுடியண்ணல், ஆடகமாடத்து அறிதுயில் அமரந்தோன், etc. Krishṇa is described as the Lord of Dvāraka (Tuvarāpati) and the favourite of the Iḍayar and other classes, who performed *kuravaikkūttu* and other festivals in his honour whenever they felt that the times were inauspicious and that special appeals to the divinity were necessary. When Kōvalaṇ was about to become the victim of injustice at Madura there were strange forebodings in the Āyachchēri outside Madura where he had left his wife. The cows and calves, we are told, showed signs of disease. The bells attached to their necks fell down of their own accord. Butter did not melt into ghee. All these foreboded evil and the *kuravaikkūttu*, we are told, was performed in order to propitiate Tirumāl.

* Indra-viḷavūr-eḍutta-kāḍai, lines 175—80.

† Aḍaikkalakāḍai, lines 103-4. அணிகழ்போதியதவோன் தன்முன் மணிமேகலையை மாதவியளிப்ப.

The songs of the Āychchiyar are unsurpassable in beauty.

வடவரையை மத்தாக்கி வாசகியை நாண்கி

கடல்வண்ணன் பண்டொருகாட் கடல் வயிறு கலக்.

[கிணையே]

கலக்கிய கையசோதையார் கடைகயிற்றார் கட்டுண்ணை மலர்க்கமலவுத்தியாய் மாயமோ மருடகைத்தே.

அறுபொருளினென்றே யமரர்களைத் தொழுதேத்த

வுறுபசியொன்றின்றியே யுலகடைய வுண்டனையே

யுண்டவாய் களவின னுறிவெண்ணெ யுண்டவாய்

வண்டமுாய் மாலையாய் மாயமோ மருடகைத்தே.

திரண்டமரர் தொழுதேத்தும் திருமானின் செக்கமல

விரண்டடியான் மூவுலகு மிருடா நடந்தனையே

நடந்தவடி பஞ்சவர்க்குத் தாதாக நடந்தவடி

மடக்கலாய் மாறட்டாய் மாயமோ மருடகைத்தே.

Their Lord was the great Māyōn, the perplexer! He churned the ocean with the Mōru for the churning rod and Vāsuki for the rope. Yet that hand lent itself to be bound by Yaśōda! At the earnest and pressing request of all the assembled gods, He ate the whole world even though he was not hungry; and yet he stole the trivial butter from the pots of cowherdesses! He crossed the three worlds in two steps. He was the conqueror of Lankā. Yet he was the humble foot-messenger to the five Pāṇḍavas. He took the guise of a lion—an indication of the Nṛsiṃhāvatāra. The description of the weapons, the temples, the incarnations, etc., of Viṣṇu in the poem, indicates that we are already in the threshold of the age of the Ālvārs. Some of its very expressions were later on reproduced by the latter; and as regards the style there is not much difference. When Kōvalaṇ met at Uṇyūr a Brahman who came from Madura and asked him wherefrom he came, he replied that he was an astrologer of the village of Māṅgāḍu and that he came thither in order to worship the Lord who slept on the bed of the thousand-hooded Aḍiśēsha, who was beautifully dark, who had the Śankha and Chakra in his beautiful arms and the gem in his chest, etc. Similarly the pilgrim, when he traced the route to Madura, refers to

the temple of Tirumālkuṅṅam, its sacred tanks and other features. He dwells upon various institutions and minor deities capable of giving various powers but concludes that worship paid to the deity on the hill was conducive to union at His feet. It can be seen from this that the poet was aware of the temptations to which a suppliant of heaven was subject. He knew that many succumbed to the temptation of siddhic powers and miraculous achievements, forgetting the goal in view. Madura again is said to have temples dedicated to Vishṇu with Garuḍa flagstaves (உவணச்சேவலுயர்த்தோனியமும்).

It may be pointed out here that the poem represents Baladēva as Vellai-nāgar (or Adī-śēsha) or Vellai-mūrti as the Epics and Purāṇas do and further shows, by the erection of temples to him, that he was regarded as an avatār of Viṣṇu. At the same time it refers in consecutive lines to separate temples of Baladēva (வால்வளை மேனி வாலியோன்) and Viṣṇu (கீலமேனி கெடியோன்). Baladēva's temple is referred to in half a dozen places. His white complexion, his *mēḷi* (plough) weapon, his valour, his *kuravaiḱkūttu* in company with Māraṇa on the banks of the Tolunai (Jumna), are referred to.

The *Śilappadikāram* also shows that the cult of Śiva was in full vogue at the time of its composition. Śiva is referred to in charming phraseologies and epithets. He is called *piṇṇa* வாக்கைப் பெரியோன், the Lord who saves men from the round of births and deaths; *tuṭal-viḷi* நாட்டத்திறையோன், the Lord with the eye on forehead; *ceṇṇuṣṣai* வானவன், the God with the golden jaṭā; *ciṇṇuṣṣai* கிண்புத்த நீளிருஞ் சென்னி உலகு பொதி உருவத்து உயர்த்தோன், the Lord of the world who has the moon on his head; and so on. He wore the crescent in order to beautify himself and win the praises of the gods. He had temples specially dedicated to Him (துதல் விழி நாட்டத்திறையோன் கோயிலும்). He indulged

in dances during which his *Jaṭā* spread in all directions. The *Nāḍuṇṇāḱāḱai* (lines 70—72) says that the Chōra king saw to his great delight the dance (called *கொட்டிச்சேதம்*) of Śiva, reproduced by the Kūṭṭa-Chāḱkaiyaṇ of the wise Brahmanical village of Paṇaiyūr. The description is characteristically graphic and charming.

செஞ்சடை சென்று திசைமுது மலம்பலும்
பாடகம் பதையாது குடகம் துளங்காது
மேசலை யொலியாது மென்முலை யசையாது
வார்குழை யாடாது மணிக் குழலவிழா
துமையவ ளொருதிற னாக வேர்க்கிய
விமையவ ளுமைய கொட்டிச் சேதம்
பாத்தரு கால்வகை பறைபோர் பறையூர்க்
கூத்தச் சாக்கைய னுடவின் மகிழ்தவன்

Amongst other prominent deities of worship should be mentioned Āṇumha (Subrahmaṇya) who had his temples (அறமுதச் செவ்வேன் அணி திகழ் கோயிலும்) of his own. Āṇumha discovered the disguise of Sūra in his place of refuge in the sea and vanquished him, displaying his triumph in the dance called *Tuḱḱikūttu* (துடிக்கூத்து) in the midst of the waves. He also foiled the designs of the fleets sent by the Avuṇas and signalled his victory by indulging in the dance called *kuḱḱikūttu* in consequence of his using the umbrella (குடை) as a shelter to his face.* His temples at Śendil, Śenḱōḱu, Veṇḱuṇṇu, Eragam, are mentioned.†

Amongst the other Aryan deities referred to in the poem is Indra, a deity common to the Buddhists, Jains and Hindus. The poem refers to the seven Indra-vihāras in Madura where the heavenly Chāraṇas expounded the Āgamas.‡

* See *Kaḱḱal-āḱḱai* (கடலாடு காதை), lines 50—53.

† See *Kuṇṇakkuṇṇai*, in *Svaminatha Aiyar's* Edition, p. 516, lines 1-2.

‡ *Nāḱḱukāṇ-kāḱai*, lines 12—15:—
அணிதிகழ் நிழலறவோன் நிருமொழி
யந்தாசாரிகள் ஹைந்தனர் சாற்று
மிக்கிரவிகா மேழுடன் போதி.

Indra was accommodated in a temple while there was the damsel of justice who shed tears whenever there was a failure of royal justice and thus silently but efficiently warned the king against injustice. The poem thus traces all the greatness of Pukār to Indra. It also refers to his depriving mountains of their wings, his riding on an elephant which extended over 140 *yōchāṇas*;* to his divine city; to his son Jayanta and his story; to his 1000 eyes; to his thunderbolt; and to his being the authority on Vyākaraṇa. The *Śilappadikāram*, refers to the traditional achievements of the Pārḱyas of old against Indra. They are said to have deprived him of his necklace, † to have beaten him on his head with a *vaḱai* and to have imprisoned the clouds which he sent in order to destroy Madura by their downpour. It is clear from all this that the Indra cult, in its local and general character, was fully in vogue in the time of the poem. The story of Jayanta, Indra's son, and Urvāsi, shows the same paurāṇic feature.

The *Śilappadikāram* also refers to various minor deities which indicate the full activity of the neo-Hinduism. One of these, for instance, is the Vanadēvata, the forest deity, which assumed the guise of Mādavi's friend and endeavoured to beguile Kōvalaṇ once again into the evil ways into which he had strayed for a time, in consequence of its being smitten with love to Kōvilan. And Kōvalaṇ who was reminded of the Māṇḱāḱu pilgrim's warnings against a deceptive sylvan deity, foiled its design by uttering a *mantra*. Another deity is Kālī. The poem gives a realistic description of the way in which she was worshipped. We are told that this deity 'came upon' a Maṇava girl named Śālini and expressed itself, in the midst of a frenzied and ecstatic dance, thus: "You Maṇavas, you have failed to give the usual offerings to me! That is why your

* *Kaḱḱal-āḱḱai*, lines 7—13.

† *Ibid*, lines 14—17.

‡ *Indra-viḱavūr-eḱḱḱa-kāḱai*, lines 111—117.

Ibid, lines 118—121.

§ *Ibid*, lines 122—127.

** *Ibid*, lines 128—134.

†† *Ibid*, lines 135—138.

* *Kāṭchik-kāḱai*, lines 15-16.

† *Kāḱḱukāṇ-kāḱai*, lines 23—31. See also *Mahā-mahāpādhyāya Svaminatha Aiyar's* footnote on p. 303.

race has fallen! That is why you have lost your valour, your pride. A revival is possible only if the offerings to which the Dēvi is entitled, are made to Her." And the assembled Maṛavas then invested Sālīni with the dress and other characteristic features of the deity for actual worship. Her hair was made into jaṭās, adorned by a pig's horn to represent the crescent. A necklace of tiger's claws was put on her neck, and she was dressed in tiger's skin. A bow was placed in her hands and she was mounted on a sheep which had strong, irregular horns. A cock, a turkey, a parrot, a peacock, roots, betels, flowers, incense, food and sisamum balls, were then offered in the midst of the beat of drums, the blowing of *chinnams*, the ringing of bells, etc. The woman was once again possessed by the deity and she prophesied to Kāṇṇaki, who was an eye-witness of the orgies, a reign over Koṅgu, Kuṭam and the whole Śen-Tamil world! It is clear from this that the worship of the village goddesses, accompanied by blood sacrifices (which might have included human beings), was common then.

Closely connected with the deity of the Maṛavas was Durgā. She is represented in the poem, just as in the Purāṇas, as a terrible divinity. There is reference to the fact that her enemies, who were experts in diabolical crafts and who sent scorpions, snakes, etc., against her in battle, were foiled by her assuming wooden feet and then trampling upon these animals in frenzied triumph. Durga is said elsewhere to be the form into which Kāṇṇaki was metamorphosed. The poem refers to Durga's dance in order to encourage the gods and discourage the Asuras, and describes her fight with the latter. She was worshipped by the sages and the gods. She was the special deity of the Veṭṭuvas and Eyiṇas, who constructed temples in dedication to her and carried her image in procession. Durgā wore the elephant skin, the lion-skin and the tiger-skin,

She had a 'bell of heroism' on one foot and a *silambu* on the other. She had the Saṅkha and Chakra in her arms. The poem thus recognizes the iconographical conception of the deity as given in the Purāṇas. Durga formed half the body of Śiva. This indicates that the poem knew the Ardhanariśvara-muhūrta of Śiva. Durga had the sword in her hands and the snake and crescent in her *Juṭā*. She kicked off Śakata, tore Dārūka's chest, swallowed poison and walked upon Maruda and felled it down. She had for her names Amari, Kumari, Gauri, Samari, Śūli, Nīli, Aiyai, and so on.

When Kāṇṇaki was apotheosised she was treated in worship just like Durgā. The poem says that Veṇṇivēṇcheliyan, the Pāṇḍyan king, sacrificed 1000 goldsmiths at the altar of Kāṇṇaki temple in order to save Madura from the miseries of famine, diseases and epidemics which visited it in consequence of a goldsmith's perfidy and Kāṇṇaki's grief.

Another primitive deity figuring in the poem is Śāṭṭaṇ, who was probably the same as Śāṭa-vāṇṇaṇ, whose temple is referred to at *Puṇam-baṇḍayūṇ-vēḷ-kōṭam* (புனம்பண்டையூன் வேல் கோட்டம்). Śāṭṭaṇ was also known as Pāṣhaṇḍa Śāṭṭaṇ and there were special songs of prayer for his propitiation. The poem gives a remarkable incident in connection with this deity. The story is this. There was once a Brahman girl named Mālāti. As she was barren, her husband married another woman and had a son by her. Once when the child was crying, Mālāti took pity upon it and fed it with milk in its mother's absence. Unfortunately, the milk got the wrong way and the child died of suffocation. Fearing that her motive would be questioned and that she would be suspected of murder, Mālāti proceeded to the temple of every persuasion which she had access to, but was unable to get the grace of any deity for the recovery of the child's life. Eventually, she went

to the temple of Śāṭṭaṇ and stayed there throughout the night in anxious and eager prayer. At that time a devil which came there with a view to eat away the corpses in the cemetery, pretended to advise the poor and unfortunate suppliant, told her that she failed to get the divine grace because of her failure to do penance during her previous birth, and then suddenly snatching away the child, swallowed it in a moment! This novel and unexpected situation bewildered the unfortunate and grief-struck woman, and she wept aloud in a tone which could melt a stone. The deity of that temple, Śāṭṭaṇ, was moved by it. Appearing before her, he assured her that she would recover her child on her way home, and then disappeared. Roused by the new hope, Mālāti hastened homeward, when on the way she saw the beloved child lying in a grove and crying vociferously. With unbounded joy, Mālāti gathered it up in her arms and darting to her house, restored the precious thing to her mother. In course of time the child, who was none else than Śāṭṭaṇ, distinguished himself as an intellectual prodigy. When his parents died he performed all the obsequies which had to be done for their welfare, married a lady called Dēvantikai and lived with her an ideally happy life for a space of eight years. At the end of this period, he showed his true form to his wife, asked her to come to his temple and vanished! Dēvantikai proceeded to the shrine and, in the grief of her separation from her lover, prayed in great eagerness for his return to his earthly incarnation in vain. It was after this that she became the companion of Kāṇṇaki and, after her apotheosis, her priestess.

Amongst the other deities may be mentioned those dedicated to Iyakkis (Yakshis) who figure prominently in Jainism; the sun; the moon; the God of Love; the Airāvata and the Vajra of Indra; the Vēl of Muraḥa, etc. There is also reference to Tamil speech as a deity; to the tutelary

deities of towns and streets; the bhūtas of different types. The gods are divided into four kinds—the Vasus (eight), the Ādityas (twelve), the Rudras (eleven) and the Maruts (two), forming on the whole thirty-three. The poem also refers to the 18 Gaṇas (the Nāgas, Siddhas, Gandharvas, Vidyādhara, Piśāchas, Kinnaras, Kimpurushas, etc.). The legends of the churning of the ocean by the Gods and the Asuras for the sake of nectar, the war between them for 18 days, the difficulties felt by the Gods under the lead of Indra, etc., all seem to be the echoes of the Purāṇas. The reference to sages and apsaras shows the same thing. Agastya is referred to a dozen times and there is reference to a curse administered by him on Jayanta and Urvaśi, and to his being worshipped as a god. Particular communities again are associated with particular deities on a legendary basis. The Veḷḷālas, for instance, are called the sons of Gaṇḡa. The Eyiṇas were connected with Durgā and the Veṭṭuvars and Kuṇavas with the manifestations of the same deity. Local legends, again, are a common feature of the age. Reference has already been made to the story connected with Kaveriṇṇampattinam—the battle between Muchukunda and the Asuras, the importation of heavenly spirits and institutions to Pukār, etc. In the city was born Mādavi, the deity who was none else than Urvaśi who, as the result of a curse invited by her jealousy to Nārada, the expert in the seven charms of the veṇṇai music, was born on earth with Jayanta, Indra's son for her companion.

The *Śilappadikāram* gives special importance to the efficacy of sacred water in giving relief from the various ills and troubles of the world. Bath in some tanks produced miraculous effects like the acquisition of some forms, some kind of knowledge, some siddhic powers. When Dēvantikai saw the plight in which her friend Kāṇṇaki was placed by the negligence and

misconduct of Kōvalaṇ, she advised her, thus: "Lady, your misfortune in this present life of yours is due to the fact that, in your previous birth, you neglected to observe any vow in connection with your lover's constancy! You have to make up for the defects of past life by the achievements of the present. There are two sacred tanks at the junction of the Kāvēri with the sea, namely, the Sōnakunḍa and Sūryakunḍā. You should bathe there and offer prayer in the neighbouring temple of the Love-God. By doing so, you will not only recover the lost company of your husband in this life but enjoy it even in heaven after this earthly life. We shall therefore go to those sacred tanks."

It only needs to be added that the proposal of Dēvantikai did not appeal to such an ideal wife as Kaṇṇaki. Though her sufferings were keen, though she had all the characteristics of a woman, she did not like to resort to subterfuges, however noble they were, in order to recover her lord's heart. She told her friend that, ardently desirous as she was to get her lover back, she could not reconcile the methods suggested by her with her own position and community. Dēvantikai herself was a good faithful woman; but she was distinctly inferior to Kaṇṇaki in the fact that she believed in supernatural means and not in the potency of her own virtues for the recovery of her prosperity. At the same time, however, it should be recognized that Dēvantikai had lost her husband by divine intervention, whereas Kaṇṇaki lost hers originally only temporarily and through human agency.

The poem refers to various other tanks which possessed miraculous powers, e.g., Śaravaṇa, Bhavakāraṇi, Ishtasiddhi, etc. The same doctrine was in vogue in connection with rivers. The Vaigai, Gaṅgai, Kumari and Kāvēri were worshipped—another very common feature of Paurāṇic Hinduism indicated by the poem. The Ganges is referred to in nearly a score of places.

Its description is given in short but beautiful epithets. It is regarded as holy and the scene of pilgrimage for Brahmans like Mādalan and royal people like Śeṇ-Kuṭṭuvan's mother. A Brahman who was disgusted with the thoughtlessness of his wife in killing a pet animal went away in disgust to the Ganges. Mādala, a man well-versed in all the Śāstras, wiped off his sins in communicating bad news to Kōvalaṇ's relatives and thus causing troubles to them, by a bath in the Ganges and Kumari. The *Śilappadikāram* refers to the legend of Śiva wearing Gaṅga in his top-knot. Amongst the other rivers thus respected and worshipped, the Kāvēri requires prominent mention. It is styled, like the Ganges, very often as the Kāverip-periāru. The Kāvēri is sometimes called Gaṅga and regarded as an equally holy river. It was a great virtue to bathe in it. It is described as beautiful and adorned with flower. It was prosperous as a centre of exports and imports, in its junction with the sea. (காவிரிவாயிர் கடைமுதம், களவ்வளன் எதிரகயவாய் நெளிக்குக் காவிரி வாயிர் கடைமுதம், காவிரிப்புதுநீர் கடுவயல் வாய்த்தலை). In the midst of its waves, was lying the Lord who has Śrī (Lakshmi) in the chest,—a clear reference to the fact that the temple of Śrīraṅgam was already in existence. The reference also shows that the Kāvēri was by this time divided into the Coleroon and the main channel, thus giving rise to the Śrīraṅgam island. It is very probable that this took place as the result of the embankment constructed by Karikāl Chōla of the Śaṅgam period proper. The expressions used in the description of Vishṇu at Śrīraṅgam are practically the expressions used by the Ālvārs. The *Śilappadikāram* is fully acquainted with the source and the mouth of the Kāvēri. It describes the city at its mouth, its seven Indra-vihāras, its five Maṅṅams, its six great women, etc., on a purely paurāṇic basis.

The *Śilappadikāram* belongs to the age when temple-worship and iconography had already

made some advance. It describes, either directly or indirectly, the characteristic postures and weapons of the different deities. It also refers to some of the most important of the Vaiṣṇavite and Śaivite temples. Among the former it mentions Vēṅgaḍam, Śrīraṅgam, Tirumālirūṅḷai, etc. Among the latter it mentions some of the well-known Subrahmanya shrines. The commentator sees indirect references to many other shrines, e.g., Tirunaḍuvūr, Tiruppuṇḍi, Tirumaruhal, Bānapuram, etc. But even if these are not accepted, there are sufficient indications in the original poem to show that temple worship was already a common feature in the then South India; and such a feature cannot be expected in the India of the pre-Gupta period. It was only about A.D. 500 that the system of worshipping images in elaborate temples came into existence in North India and the Dakkan. The same must have been the case in South India. The reference to local legends; the system of pilgrimages; the worship of tanks and rivers; the play of supernatural agency; the popularity of the stories of Nalā and Damayanti, Duryōdhana and the Pāṇḍavas; the common prevalence of the purāṇic lore; and many other features, already enumerated, indicate cumulatively an age later than that of the "Śaṅgam works proper" but earlier than the age of the Ālvārs and Nāyanārs.

The *Śilappadikāram* is supported in many respects by the *Maṇimēkalai* which contains also some additional data indicating the same conclusion. In the next two articles we shall deal with the story and the lessons afforded by that poem. Such a study would enable us to see that the theory of the 5th and 6th centuries for these poems would reconcile all data on the subject.

THE POEMS OF THOMAS HARDY

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VII.

MOODS, MUSINGS AND MEMORIES.

THE posthumous volume of verses, 'Winter Words,' published about the end of the year 1928, has a prefatory note in which, as in the Apology prefixed to 'Human Shows,' Hardy utters a note of warning against any system of philosophy being read in them. For, though in his preface to 'Poems of the Past and the Present,' he says "unadjusted impressions have their value, and the road to a true philosophy of life seems to lie in humbly recording diverse readings of its phenomena as they are forced upon us by chance and change," he repeats that he "never tried to co-ordinate the fugitive impressions" into any system "warranted to lift the *burthen of the mystery* of this unintelligible world." In spite of his warning, readers cannot help drawing inferences and conclusions from the persistence of certain moods in the poems regarding the reach of his meditations. The poet reveals himself, and reflects the age through his temperament. And, independently of the ultimate value of his message or implied system of thought, the poetic activity in the musings and visions is to be prized for itself. To trace them and their contents is a helpful exercise. The relative position of man in an ageless, timeless and measureless universe, as a speck in the heavens, is in his mind as a reminder of his smallness. Yet, the passions that stir his heart as a human being are greater in magnitude to him than the vast background, a sentiment which inspired the

A senseless school, where we must give
Our lives that we may learn to live!
A dolt is he who memorizes
Lessons that leave no room for prizes.

In a lighter mood Hardy traces the transference of the mother's features by time to the face of her son who left her long ago to journey in foreign lands. The sailor has come back, but the mother is dead. As the son sits by the fire-side, the poet is struck by the glance and countenance of the home-comer revealing

His mother's; she who saw him not

After his starting year,

Who never left her native spot

And lies in the churchyard near

though there was little in common between the experiences of the son in wars and forests and of the stay-at-home mother. A similar reflection is found in Chapter 3 of the 'Mayor of Casterbridge' in the description of the appearances of the mother and daughter on their return to England after the death of the sailor husband who had purchased the mother for five guineas a few years before. The reflection suggests that Nature's powers of continuity are imperfect. "A glance was sufficient to inform the eye that this was Susan Henchard's grown-up daughter. While life's middle summer had set its hardening mark on the mother's face, her former spring-like specialities were transferred so dexterously by Time to the second figure, her child, that the absence of certain facts within the mother's knowledge from the girl's mind would have seemed for the moment, to one reflecting on those facts, to be a curious imperfection in Nature's powers of continuity." The discovery of the similarity of features in Frances and Mr. Milborne, in the short story 'For Conscience' Sake' in 'Life's

Little Ironies,' after a boating excursion, 'lifted a mysterious veil, revealing a strange pantomime of the past' that almost threatened the future happiness of the daughter as the young lover who observed them suspected their relationship and temporarily retired from his courtship.

The story of the 'Dance at the Phoenix' illustrates how the character in the blood cannot be resisted long and how it springs to active life as circumstances occur, in spite of human resolves to overcome them. After an immodest youth, Jenny vowed to lead a proper life with the young man who came with offer of love from a distant place. Years of happy wedded life crowned her and she was now old. But she was stirred in her depths by the band of the king's own cavalry. Under the 'spring-tide' impulses she left the husband's bed, quietly, to dance with the soldiers who, though surprised, welcomed her. Returning before day-break, she slept, as usual, by the unsuspecting spouse. She had repented on reaching home.

She felt she would give more than life

To be the single-hearted wife

That she had been erstwhile.

The agony of the strain had touched her and she died. Though he was dismayed and though some explained her death as due to mighty exertion, 'his doubts remained unstirred.' The soldiers were sad, but they spoke not a word. So do little deeds indicate the drift of the mind and inclinations. The children ask the mother, in wonder, why she always dressed the 'Dolls' like gallant soldiers, and not like gentle ladies as other children's playthings were. The reply is a flash of character, but it is not the mother's.

"Because your mammy's heed
Is always gallant soldiers,
As well may be, indeed,
One of them was your daddy,
His name I must not tell;
He's not the dad who lives here,
But one I love too well."

Shadows of the past hang over her and shadows of possible troubles in future are cast by the words. Hardy seems to delight in offering episodes like these even in the novels. In the story of Elfride in 'A Pair of Blue Eyes' we see William Worm and his co-workers discuss character in respect of her mother and the mother's mother. They refer to her running away to meet Smith. "That trick of running away seems to be handed down in families, like craziness or gout. And they two women be alike as peas."

'Which two?'

'Lady Elfride and young Miss that's alive now. The same hair and eyes; but Miss Elfride's mother was darker a good deal.' Another is in the 'Return of the Native' when the mother, hearing Clym's plans of giving up his post in Paris and starting a school in Egdon, is a little pained. "I suppose you will be like your father; like him, you are getting weary of doing well." And, again, when she journeyed across the heath to be reconciled to him, the furzecutter first appeared as a mere parasite of the earth before her and then as nothing more than a moving handpost to show her the way. "Suddenly she was attracted to his individuality by observing peculiarities in his walk. It was a gait she had seen somewhere before; and the gait revealed the man to her...."

'His walk is exactly as my husband's used to be', she said; and the thought burst upon her that the furzecutter was her son."

The human interest ever present in his meditations delights in observing 'the quality and associations of the lives of men' and women, and their relation to houses and places. The poem—'The Two Houses'—expresses the belief that the Presences of the dead people old houses, though the new tenants see and know so little of them. The new house that looked smart and prided itself on its modern wood, fine hangings, and waterpipes mocks the old neighbour with its cracked old hide and wormy beams! The aged one rebukes the younger into awe and wonder

"You have not known
Men's lives, deaths, toils, and teens;
You are but a heap of stick and stone:
A new house has no sense of the have-beens.

* * *

Where such inbe,
A dwelling's character

Takes theirs, and a vague semblancy
To them in all its limbs, and light, and atmosphere."

The poet urges, therefore, the preservation of the dwelling where Keats once lived, as mentioned in the essay on the memorial poems. The fancy finds fuller expansion in the poem 'The Strange House'—his own home Max Gate—as in 2000 A.D., when two newcomers occupy it and are disturbed by undertones and figures and

* * * the piano playing—

Just as a ghost might play

the more sensitive of the two is much impressed and is eager to get away. The companion who is not touched by the presences adds:

"—Ah, may be you've some vision
Of showings beyond our sphere;
Some sight, sense, intuition
Of what once happened here."

The house is old ; they've hinted
It once held two love-thralls,
 And they may have imprinted
 Their dreams on its walls ? ”

When, therefore, he spends a 'night in the old home,' the shades of his forbears sit by his side and he notes

'A strange upbraiding smile upon all their faces.'

They weigh his queries and, in response to his wistful thoughts on Life, convey a message of placid resignation and cheerful courage and generous hospitality.

“—O let be the Wherefore ! We fevered
 our years not thus ;

Take of Life what it grants, without
 question ! ” they answer me seemingly,

“Enjoy, suffer, wait ; spread the table
 here freely like us,

And, satisfied, placid, unfretting only,
 watch Time away beamingly ! ”

These words are full of the wise caution and the quiet manly surrender and equanimity that breathe in many other similar broodings on the why and wherefore of human life.

Places, too, evoke in the mind of the poet their associations and the vision is a source of unalloyed joy in rare moments. To each of us places are bound up with events that made, and marred the prospects of a life. The evocation makes keener our inmost delights of the fleeting times when life once showed her best to us. To ordinary men 'A spot' means nothing. It was the trysting place of two lovers who sat there

Lit by a living love

The wilted world knew nothing of,

Years have flown, with no mark upon the place.

But lonely shepherd souls

Who bask amid these knolls

May catch a faery sound

On sleepy noontides from the ground !

'O not again
 Till Earth outwears
 Shall love like theirs
 Suffuse this glen ! ”

The subtle emanations touch him. 'Beyond the Last Lamp' in 'Satires of Circumstance' reveals a gap of thirty years between the two meetings of the lovers near Tooting Common near the last lamp. When the poet saw them, there was an air of misery and sorrow about their countenances under the yellow glance of the light. The second meeting, to the poet's eyes, was of their shades, with the same tragedy about them

* in curious converse there

Moving slowly, moving sadly—

And ever after, they haunt his imagination.

* * * And yet

To me, when nights are weird and wet,

Without those comrades there at tryst

Creeping slowly, creeping sadly,

That lone lane does not exist,

There they seem brooding on their pain,

And will, while such a lane remain.

'The Eweleaze near Weatherbury' revives the memories of her who once danced with the young man years ago and whom he, now old, would worship even then. He would laugh and sing with her and win back those happy hours of long ago in spite of

* * * the little chisel

Of never-napping Time

Defacing wan and grizzel

The blazon of my prime.

The wish cannot be realised for,

She would not balm the freeze

By murmuring "Thine for ever !"

As she did upon this leaze.

But the association is precious,

It has been observed of Hardy's mind that it does not hope exultantly. True, very

optimistic faith is not native to his thought. Yet he is not insensitive to solace arising out of the possibility that sojourn on earth was meant for human happiness.

On a fine morning

Whence comes solace ?—Not from seeing

What is doing, suffering, being,

Not from noting Life's conditions,

Not from heeding Time's monitions ;

But in cleaving to the Dream,

And in gazing at the gleam

Whereby gray things golden seem.

Thus do I this heyday, holding

Shadows but as lights unfolding,

As no specious show this moment

With its iris-hued embowment ;

But as nothing other than

Part of a benignant plan ;

Proof that earth was made for man.

This mood, however, does not last long.

He has been taught to fear that

'Mornings beryl-bespread,

And evenings golden-red'

may end in a crash and may go wrong. But his pre-vision steels him to the end and his equanimity is unshaken. In the self-revelatory poems—'Epitaph,' 'He never expected much,' 'For life I never greatly cared'—this aspect of his musings is evident. Yet, though in his manhood conditions of doubt made him look askance at life, its colour and music won him later.

And I warmed, until living aloofly loomed duller

Than life among men,

Anew I found nought to set eyes on,

When, lifting its hand,

It uncloaked a star,

Uncloaked it from fog-damps afar,

And showed its beams burning from pole to

horizon

As bright as a brand.

The vision put zest in him and he had no mind for failing in his pilgrimage. Ardent enthusiasms and noble aspirations and activities for human welfare warm him and he welcomes them. And, when blighting influences paralyse them and retard or destroy them, the loss of the good is voiced in his regrets as the retrospect of a day's work takes place in his musings by the fireside in the poem *A Commonplace Day*. The lyric 'Survival' in 'Late Lyrics' is a gem. His voice admonishes him, seeming to cry from the sticks of the fire.

"You taught not that which you set about,"

Said my own voice talking to me ;

"That the greatest of things is Charity..."

though his writings have gone a long way in the promotion of the kinder feelings among men.

The good is often lost, while the Ironic Spirit seems to be mischievously inclined against the Spirit of Pity in dealing with lives. The incident 'In a London Flat' shapes into a charge against the former Phantoms that, as it were, laugh at men. The lady in the adjacent room spoke in fun to the man in the front one on a dark night,

'You look like a widower'

which he was next year, somehow

"Let's get him made so—just for a whim !"

Said the Phantom Ironic, " 'Twould serve her right"

If we coaxed the Will to do it some night."

"O pray not !" pleaded the younger one,

The Sprite of the Pities. "She said it in fun."

As in individual lives, so in national relations, what is reasonably conceived and striven for may be defeated and thwarted before the realisation. The sight of the world threatened by war-clouds leads to

sadness of heart in the utterance: "We are coming to the end of dreams" in 'Winter Words.'

We are getting to the end of visioning
The impossible within this universe,
Such as that better whiles may follow worse,
And that our race may mend by reasoning.
Peoples may again destroy each other,

* not wares, or from taste,
But tickled mad by some demonic force.

But each of us can live on memories, which remain, of the best of our experiences; the joy in them only doubles with the passage of days and gains a glory even while darkness may gather all around. The rare intervals of happy accidents, of 'great things' and 'best times' linger in the recesses of the soul. Let us prize them and enhance their value. In 'Jaws of Mercury' the poet retires to rest—
old hours re-greeting
With the quiet sense that bring they must
Such throbs as at first.....

He apprehended this character of happiness by intuition in youth, for the 'shadowed spirit' that stood near the musical box sang

"O value what the nonce outpours—
This best of life—that shines about
Your welcoming!"

The sense of the abiding in fleeting joys renders them vivid and real and inspires the love-lyrics in 'Satires of Circumstance' under the heading Poems of 1912-1913—*Veteris vestigia flammae*—memories of the poet's first wife who died about the end of the year 1912 and of the 'last drive,' 'the going,' 'the walk,' 'where the picnic was,' etc. So the hills explored in lifetime, the trees on the way, the excursions with friends, the parties where 'smart sallies' poured, and

the streams of early youth are doubly dear, and are recollected; the places are revisited and enshrined. Castle Boterel ever connected with Hardy's romantic love of Emma Lavinia Gifford, as it was with the story of Elfrida in 'A Pair of Blue Eyes,' is one of these. The most momentous event in their lives rises like a phantom on the slope, with the shape of the lost dear.

"I filled but a minute. But was there ever
A time of such quality, since or before,
In that hill's story?" * * *

"And to me, though Time's unflinching rigour,
In mindless rote, has ruled from sight
The substances now, one phantom figure
Remains on the slope, as when that night
Saw us alight."

The words of Havelock Ellis may be quoted here in appreciation of the love-lyrics. "It is that element of art which imparts, at once both atmosphere and poignant intimacy, external farness with internal nearness. The lyrics of Hardy owe their intimacy of appeal to the dominance in them of recollection (in 'Late Lyrics' and earlier one might say it is never absent), and that is why they can scarcely be fully appreciated save by those who are no longer very young."

The lyrics are numerous in the later volumes and show perfect art. One may be given in full from 'Human Shows.'

"She opened the door"
She opened the door of the West to me,
With its loud sea-lashings,
And cliffside clashings
Of waters rife with revelry.
She opened the door of Romance to me,
The door from a cell
I had known too well,
Too long, till then, and was fain to flee.

She opened the door of a Love to me,
That passed the wry
World-welters by
As far as the arching blue the lea.
She opens the door of the Past to me
Its magic lights,
Its heavenly heights,
When forward little is to see!
1913.

The lines 'Under the Waterfall in 'Satires of Circumstance' are exquisite in the sense they revive in the memory of 'lovers' wine.' The lovers went out to the river and, after they had drunk together, they neared the waterfall to rinse the glass: it slipped and fell into the depths below. The efforts at recovery were vain.

There it lies, with the music of the waterfall from above to the rhyme of love.

* * If I thrust my arm below
Cold water in basin or bowl, a throes
From the past awakens a sense of that time,
And the glass we used, and the cascade's
rhyme,
The basin seems the pool, and its edge
The hard smooth face of the brookside ledge,
And the leafy pattern of china-ware
The hanging plants that were bathing there,

No lip has touched it since his and mine
In turns therefrom sipped lovers' wine.

So closely are our memories interwoven with events and happenings and such is the power of association and recollection.

Hardy hopes to be remembered for the little things of external nature in the observation of which he delighted—his pleasure in the green of the leaves in May, his efforts to save little creatures from the hedgehog furtively travelling on the lawn at night, his wonder at the sight of the 'full-starred heavens' of winter and the pause in the

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tolling of a bell made by a cross-breeze—in the concluding poem 'Afterwards' in 'Moments of Vision.'

He derived the purest pleasures from intellectual activity and exercise and he is glad he had his share of unselfish joys in all artistic recreations and creation. Sitting in the Hall of the Muses at Rome, he regretted his own inconstancy in the pursuit of the arts, now choosing one and now another. The Muses combine into one and cheer him.

"To-day my soul clasps Form; but where is my truth

Of yesternight with Tune; can one cleave
to both?"

"—Be not perturbed," said she. "Though
apart in fame,
As I and my sisters are one, those, too, are the
same."

"—But my love goes further—to Story, and
Dance, and Hymn,
The lover of all in a sunsweep is fool to whim—
Is swayed like a riverweed as the ripples run!"

"Nay, wooer, thou away'st not. These are
but phases of one;

"And that one is I; and I am projected from thee,
One that out of thy brain and heart thou
cause'st to be—

Extern to thee nothing. Grieve not, nor thyself
becall,

Woo where thou wilt; and rejoice thou canst
love at all!"

We all know what a lover of music he was and what delight he had in describing dances in the novels where young couples joined. But greater than all is love and in his quiet way, in the poem *A Poet* he sets little store by popular applause, social honour and the curiosity of literary pilgrims when they visit him. The highest praise is not in these.

But soon or later, when you hear
That he has died this wrinkled gear,
Some evening, at the first star-ray,
Come to his graveside, pause and say;
"Whatever his message—glad or grim—
Two bright souled women clave to him;"
Stand and say that while day decays;
It will be word enough of praise.

In spite of death, 'loving is divine.'

 A really suitable text-book of Grammar and Composition for the lowest English class is hard to find; here is an excellent one to adopt.

THE SIMPLER PARTS OF SPEECH

WITH EXERCISES IN COMPOSITION

By P. C. WREN, M.A. (Oxon.), I. E. S.,

AUTHOR OF "THE INDIAN TEACHER'S GUIDE," "INDIAN SCHOOL ORGANISATION," ETC.

First Edition, September, 1914.

Eighteenth Edition, January, 1929.

Price, As. 8.

The title of the book hardly does justice to its contents, for "The Simpler Parts of Speech" is, in reality, a **First Book of Grammar combined with a course of easy lessons in Oral Composition**. The experienced teacher will find that he can put to a variety of uses the **2000 everyday** sentences which the book contains, and which are meant to familiarise the young pupil with easy constructions and words in everyday use. In this respect this little book is unique of its class, a fact which is attested by its continued popularity and the various attempts made at imitating it.

OPINION.

The Simpler Parts of Speech is to the lower classes what the "Progressive Composition" is to the High School. I think that it is bound to exert a far-reaching influence upon the direct method of teaching English in the initial stages. Without any attempt at the formal teaching of grammar, this book, in the hands of a capable teacher, would surely lead the students to acquire, by imperceptible degrees, the power to speak and write correct English as well as a fair knowledge of the elements of grammar. It richly deserves to be used as a text-book in our Primary and Lower Secondary classes.—*P. K. Anant Narayan, M.A., L.T. (Govt. High School, Parur, Travancore.)*

COOPER, Publishers, BOMBAY.

EXTRA-CURRICULAR ACTIVITIES IN THE HIGH SCHOOL*

By

Dr. G.S. KRISHNAYYA, M.A., Ph.D. (Columbia),
Professor of Education, University of Mysore.

THE main function of the school through the ages has been to create good citizens. "Good citizens" has meant different things at different times among different peoples. To some peoples it has meant brave and efficient soldiers; to others, individuals well-versed in art, music, and the so-called cultural subjects; to others still, it has meant individuals who not only supported themselves vocationally, but who also took an interest in the welfare of their communities and country, although such an interest did not benefit them financially. But no matter what the ideals of the particular people have been, the school has been looked upon as the maker of citizens who could take their places in the existing state of affairs and contribute to the further development of the ruling type of civilization. All this is neatly summed up in Dr. Briggs' words: "The first duty of the school is to teach pupils to do better the desirable things they are likely to do any way, and to reveal higher types of activities, and to make them both desired and to an extent possible."

And yet after about two centuries of British schooling, we are constantly told that we lack a number of qualities and traits which a progressive people should possess. We do not co-operate with each other. We lack initiative and practical-mindedness. There is no spirit of enterprise. A sense of responsibility is conspicuous by its absence. Originality and independence are unknown. The critical

* A Paper presented at the last meeting of the All-India Federation of Teachers' Associations in Bombay.

faculty does not function. Powers of organization are rarely found. And so on *ad nauseam*. If these charges are true, and if we do not possess or exhibit those fine qualities, does it mean that the citizen-making institution has functioned? We might grant that some of these drawbacks have been with us for several centuries. We might even grant that some of them have become part of our nature. But then what is education for, if it is not going to change conduct? If an educational system has not set itself to correct inherent or long-standing defects and drawbacks, it has failed in its mission. A genuine philosophy of education for India would take our weaknesses, our needs and our opportunities into consideration and aim deliberately to meet them. Given a system where knowledge is synonymous with education, where University examinations occurring once in two or three years are the sole criteria of a candidate's ability and achievement, where the text-book is expected to be crammed as a book of texts, where practical or physical activities are not obligatory and which gives the students no opportunities for co-operation, initiative and organization, and then, dare you be surprised or annoyed that they are not different from what they are.

But now we know better. And we are informed that our education is in our own hands. Aware of our drawbacks, we may work to overcome them. Idle vituperation and fault-finding will get us nowhere. It is our task and our privilege to remedy the evils and defects in the training imparted in and through our schools. It is our duty—a pleasant duty—to see that our schools do educate citizens of whom India may well be proud. It is about the ways and means by which such desirable education may be

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imparted, in spite of the curriculum, that I wish to speak this morning.

If we try to relate knowledge alone to the business of being a good citizen, we have to stop short unable to find the real connections. All the knowledge in the world as to how a good citizen acts and behaves does not mean necessarily that the individual having such information will act in any certain way. Knowledge of law is no guarantee of its observance—sometimes much the reverse. Knowledge and practice must go together. What the individual does is at least as important as what he knows. He must be taught to act properly. Habits are made only through practice; so practice in making proper actions is necessary.

There are persons who talk of "being good" and of "being a good citizen." Evidently they imagine that there is a general quality of "goodness." But it is impossible to be good apart from doing good acts. It is possible to be a good citizen only through doing the acts which the good citizen does. If we are to make a good citizen, we should first analyse the good citizen into his elements or characteristics, and then deliberately try to produce those elements.

If the individual has no intelligence, he cannot become a good citizen. But other elements are also important—ideals and habits. It seems, therefore, reasonable to help the student to become conscious of his ideals and then provide situations in which the ideals would be forced to function. "Practice makes perfect," but only by careful watching and correcting can practice really make perfect in the desired direction. Extra-curricular activities have a very important function in developing the citizen because

they offer so many opportunities for this practice of desired ideals. The regular work of the school offers comparatively few opportunities for the development of desirable social ideals and habits. It is concerned mostly with knowledge.

The objectives:—1. To prepare the student for life in a democracy. If the school is so organized and administered that the student has opportunities and responsibilities somewhat similar, in a small way, to those he will have later as a grown-up citizen, he will be the better able to meet and discharge those responsibilities.

2. To make him increasingly self-directive. Boys and girls who fail in conduct during their first year at college or away from home, are those whose parents gave them little or no practice in controlling themselves and in directing their affairs. In the world the value of such wise self-direction cannot be over-estimated. Extra-curricular activities provide numerous opportunities in which the student may gradually assume increasing responsibility for his own direction.

3. To teach co-operation. Invaluable as this is in India, yet little is done in the traditional work of the school to teach it. Membership in a student council, athletic team or club, teaches co-operation because the student has to exercise it in order to retain his position and standing.

4. To increase the interest of the student in the school. This is done by giving him a small part in the management of its activities. While students may not be able to rule themselves entirely, they are able to manage many of the small affairs about the school. He who said, "It is more blessed to give than to receive" was right. The student who gives

of his time and energy to his school, cares for it the more because of his contribution of effort. If we can multiply these opportunities so that more students can participate in running the school, the more contacts shall we have created with the students and the more friends shall we have made. With such an increased interest and responsibility, the problem of rowdiness or strikes will become inconceivable. A genuine school spirit, *alma mater* feeling, may then come into evidence.

5. To foster sentiments of law and order. The poorest and least intelligent discipline in the world is that which is effected through fear. The best discipline is that which comes from within, and comes because the group itself takes pride in holding up its own standard. Rules are always a challenge. Threats only increase trouble for those who make them. Attempts should rather be made to increase the lovers of the school, and less disciplinary measures will be necessary.

Another way of stating the values of extra-curricular activities would be to say that they make for social training, vocational training, civic training, training in leadership, moral training, training for leisure, and health training. Writing so early as 1915, an American says: "Perhaps the greatest dividends which are to be realized from investments in extra-curricular activities will be ethical. . . . The best method of imparting moral training to the youth is to get him to take part in the actual life about him, for every ounce of moral experience is worth a pound of ethical teaching."

Having seen the need for extra-curricular activities as a back-ground, we may now proceed rapidly to observe some of the more important activities which may be introduced

and encouraged in any High School. Later on the problem of organization and finance may be briefly examined. Then it will be time to notice some precautions and requirements without which these activities will become undesirable and wasteful.

The Home-room:—Home-room or report-room organization is a movement which has but recently appeared in the large American High Schools. By it is meant that the student reports to a certain teacher in a specified room at designated times during the day. Details of checking attendance, making class announcements, etc., are usually cared for at these times. The room is a *school home*.

The values of such an organization are not hard to find. It enables the teacher and student to become better acquainted. It provides opportunities for developing the personal qualities of the student. The adult must co-operate, be loyal and responsible, having pleasing social characteristics, and right ideals and habits. These can be developed better in a small group than in a large group.

The home-room must originate with the teachers, but it takes sympathy to develop the idea and ideal successfully. The interest of students and teachers is essential as is also a thorough study and discussion of the materials, opportunities, objectives and possibilities. Indispensable are carefully selected sponsors and student-leaders who meet frequently in order to consider further developments and adjustments.

The usual officers may be chosen. The Chairman assumes control of the formal meetings, and acts as an assistant to the teacher. The Secretary reports the minutes to the Council, Principal and Publications

Committee, and finds out what other Rooms are doing. He schedules, with the help of the Chairman and the Programme Committees, desirable programme. The selection of a few Committees by the officers and teacher not only adds to the number of educative opportunities offered, but provides a distribution of labour which would result in a greater interest and success. Usually Programme-Committees, Attendance-Committees, Welfare Committees, House-keeping Committees are to be found. It is better to have a few officers and a few Committees with actual jobs than many officers and Committees for which jobs are to be made. All programmes should be instructive and interesting, and most of them should be socialized.

The Student Council:—Training the student for living in a democracy cannot be accomplished if the school is an autocracy "run" by the headmaster, or a bureaucracy governed by the teachers. It is not such as to fit him for self-direction. Training for life by having to meet situations which resemble the real situations of life is fast becoming the theory and practice of good schools. This means making provision for student participation in control, and adopting some form of representative government. Any plan which enables the student body to co-operate with the Principal and the staff in meeting the problems of the school, falls within the term Student Council. It may be known as School Senate, Cabinet, General Organization Committee, School Congress and so on.

Students can participate in the handling of the many affairs of the school. The values of the Council rest in a large measure on the teacher-sponsors, and therefore great care should be used in the appointment of these,

The student learns by doing. The voter too has responsibilities. The Council organizes and supervises all of the extra-curricular activities. It should be an elected body representing all the interests of the school, and as such should see that each worthy interest is properly recognized, organized and financed.

There are different kinds of organizations, but the general principles underlying the origin and work of the Council may be mentioned here. It must be demanded of the school. A study of the ends to be accomplished must precede any attempt at organization. The Council must represent the school as a whole. The average pupil must feel that he is represented. Both student-body and staff should be fairly represented. Neither should be suspicious of the other. The Council should not be too large. The organization must have definite powers and duties. The Council must not be considered a disciplinary body either by teachers or students. It will develop only through successful accomplishments which the school and Committee can see and appreciate.

The Assembly:—It is valuable as an administrative device or convenience. Through announcements and otherwise, it makes, for a common knowledge of rules, customs and traditions, which means the unification of the school spirit. The main value however is educational. It should supplement class-room work, develop self-expression, widen the interest of both students and teachers, correlate the interests of the school and the community, and be a place for recognising worthy achievements. A corporate sense is thus easily built up. It is desirable to have an Assembly Committee composed of several students and two or three teachers, and

subordinate to the Student Council. This would be responsible for all the programmes of the year or term. The majority of the assembly programmes should represent the school and its work. Then there are special days which are observed nationally. A better appreciation of their country and a broader conception of patriotism can thus be secured. One good programme a week is better than daily routine affairs consisting of formal talks and announcements.

Clubs:—The adolescent is a "Joiner." The School Club offers a fine opportunity for the beneficial capitalization of one of the strongest urges in the adolescent student. Clubs have other values. They provide an enrichment of student-interests which in their turn will make possible the wholesome, and appropriate use of leisure. Because of their variety and number, School Clubs offer fine opportunities for exploring, developing and widening the interests of students. Further, Clubs help to motivate the regular work of the school. Whenever possible the Club should link up with some school subject. The Club and class-room may supplement each other. Club programmes should be based on student interests. These Clubs fail most frequently because they have not been organized on a sound basis or carefully-thought-out plans. The Council should charter all Clubs in the school and no Club should be chartered until it has met very definite requirements set by the Council. Club membership should be open to all who have the requisite interest or technical ability. No Club should be allowed to elect its members. A Club satisfying these requirements might be formed around any interest or school subject. An interested and sympathetic sponsor is essential to the success of any Club. Meetings should

be held during school time, and should be varied in type so that interest may be maintained.

Dramatics:—From the earliest times the importance of drama as a teaching instrument has been recognised. All students are interested in some form of dramatics. Acting gives the student a means of getting away from himself and of being another personality. It serves to satisfy the natural desire for action. The student likes to express himself. Traditional school practice has tended toward conformity and the suppression of individuality. Plays, circuses, musical concerts, pageants can all be classed under the broad head of dramatics. The value to the actor and to the school is obvious. Class-work can be made interesting by being dramatized. The community becomes interested in better plays and better literature when such are shown to them.

To avoid confusion and to ensure the general interest of the student body, it is best to form several Committees—for Music, Costumes, Properties and Scenery, Ushering, Tickets, Publicity, Cast, Stage-management and Business. Employing a coach or director from outside is wrong. Pleasing parents is not as important as educating the children. Plays should be chosen with care, and with a proper consideration of available material and the end desired.

Music:—Every one likes music. However, tastes may differ as to the kind preferred. Music in general has a universal appeal. Everyone, throughout his lifetime, will hear a great deal of music. So, it is clear that the school has an obligation in helping to form musical tastes.

School music helps to discover and develop the talent which many students have, but

which for lack of encouragement or opportunity for its expression, never develops. The simultaneous use of several instruments—orchestrated groups—may be tried in boys' and girls' schools. In every High School in America, one would find a band, and an orchestra of several pieces, not to speak of choruses. Academic credit is usually given for music. In this music-loving land of ours, there is no reason why group singing and group performing should not become common and universal. Music contests among students who have musical ability is a good device for the motivation of music education.

Literary Society:—One of the oldest activities in the school is the literary society. In one form or another it has persisted since the early contests of the Greek and Roman schools. Usually too few students participate and the programmes are uninteresting. The programmes could be made more interesting by the introduction of original stories, poems, essays, by simple dramatizations, debating, reviewing current events, book and dramatic reviews, biographies, public speaking, etc.

For improving debates, it may be suggested that the educational values of the debate instead of the winning, be emphasized. It is desirable to use extemporaneous debates, to encourage intra-scholastic debating, to choose reasonable topics, to emphasize argument and discourage glibness, and to seek the co-operation of the entire staff.

Citizenship:—Various methods might be used for training in citizenship. Among them are morality codes, creeds and pledges, citizenship balloting, self-rating scales, and record cards, citizenship awards, discussion and dramatization of the elements of good citizenship, citizenship contests and organized

courses in citizenship. School spirit and morale are important elements. Morale is based on confidence and ability. Confidence is based on knowledge of ability and pride in it. The school must provide opportunities for the student to participate in its life in order that he may feel a direct personal interest in it. Its organization, programme and activities must be such that he can take pride in them, and he should have opportunities for the expression of this pride. The staff on their side should encourage an alumni-spirit and devotion by the treatment they give the old boys. If the relations between the pupils and teachers were wholesome, such loyalty would be almost inevitable. Not many High Schools and Colleges have managed to call forth this attitude—and almost no Government institutions.

One of the important elements of good citizenship is courtesy. The staff must recognise and accept responsibility for teaching it. Plans for teaching good manners should be reasonable, progressive and continuous. The pupils themselves should help to develop and execute these plans. It may be taught through association and observation, by the use of illustrations, in literature and history, of campaigns and drives, by formulation and codification of rules of good conduct, and by making a definite study of courtesy by means of books, assembly and home-room programmes, problems, quotations and publications. Learning about courtesy does not ensure courteous conduct. It implies habits as well as standards, and habits are developed only by practice.

Athletics:—The value of athletics and physical exercise for Indian schools and colleges, for boys and girls, cannot be over-

estimated. There is no hope for India unless this aspect is duly stressed and weakening and devastating causes and customs are attacked. The trend in the West in athletics is very strong now towards mass participation, entire class or school competition and there is a consequent emphasis upon making available for all students the fine educational opportunities of athletic competition.

There are many other activities which are important and interesting but which cannot be dealt with at any length and so they will only be enumerated—Excursion Parties, School Newspaper, Magazine, the Hand-book, School Banks and Banking, Scouts and Girl Guides.

Some precautions need to be considered before closing. It is likely to be urged that these extra-curricular activities will take up much of the student's time that should be given to his class-work. In order to limit the participation of over-enthusiastic youngsters, and to encourage the diligent, a point-system or a system of marks and minors is usually used. However, it may be said that if extra-curricular activities should not interfere with the traditional curriculum, neither should curricular activities interfere with the more effective extra-curricular activities.

Finance:—It seems best to assess the whole student body a certain fee, the collection forming the fund from which the different Clubs and Associations draw. It is advisable to have one of the teachers as treasurer. He may be assisted by one or two students in the book-keeping, etc. Too great a risk is involved in entrusting large sums of public money to the care of High School youths.

The Director:—A consideration of the task of the Director will show that the requirements for such an office are of a high order. He must be a leader. As a leader, he must be a

teacher, an administrator, a counsellor and a friend. He should have the best educational and professional preparation as well as experience in teaching—these in order that the other members may have proper respect for him. A pleasing personality, sympathy, unbounded enthusiasm and a sound educational philosophy in addition to the more technical requirements are the pre-requisites of the office. Whether these activities be directed by a full-time or part-time Director or the Principal, all of the basic principles suggested above will apply. Sometimes one of the regular teachers may be directing an activity, and in order that he may not be overworked, his extra work should be put into his school period. Staff guidance must be intelligent, steering between the two possible extremes. The relation of sponsor to the organization should be one of guidance and advice rather than one of dominating direction. The pupils should be encouraged to work and plan wisely and to express their thoughts freely. There should be constant encouragement of initiative, resourcefulness and originality.

There are several books known of America on this subject. No books with any in England. There is "Activities," one by the title "Extra Curricular," one by McKown, a Mac Company, and another by Wilde, of the Cassell will do for the present.

Let me close as I began. It is necessary that attention should be given to nation-building and citizen-making activities outside the curriculum so long as the prescribed curriculum devotes itself entirely to the accumulation of facts. In view of the great possibilities that lie along the line of these activities I hope and trust that you will give this aspect of school-work your serious attention and your best effort. Then and then alone will the school have discharged its obligation to this and the succeeding generations, teaching people to live co-operatively, to think clearly and critically, to exercise initiative and independence, to shoulder responsibilities and practise fair-play, to build strong bodies and active minds, and to serve their God by serving their fellowmen.

RECOMMENDED.

WREN'S HIGH SCHOOL ENGLISH GRAMMAR is recommended as highly suitable for High School students because it lays emphasis on *Composition and Usage*.

Also because it is invaluable —

- (1) For revision of English Grammar in High School classes.
- (2) For reference on all questions of English Grammar and Usage.
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OPINION.

many well set Grammar lays emphasis on Composition and Usage. There are used for revision, exercises In our opinion a book such as this should be comparison with better reference and for exercises. For these purposes, it bears The Punjab Educational Journal, May, 1929.

Teachers who are dissatisfied with their present text-books of grammar are requested to secure a copy of Mr. Wren's book. They will find that it is just the book they want: and this conviction will grow stronger as they use it in the class-room.

COOPER, Publishers, BOMBAY.

BRAHUI FORMS AND DRAVIDIAN ORIGINS.

By

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THE Brāhūi words whose affinities are discussed below are taken from the only three available sources: Sir Denys Bray's incomparable Grammar, the Gospel of St. Matthew in Brāhūi published by the Bible Society, and the short extracts in Brāhūi contained in the Linguistic Survey of India (Vol. IV). Every student of Dravidology regrets that Sir Denys Bray has yet been unable to bring out his proposed second volume on Brāhūi; the brilliancy and thoroughness of his treatment in the first volume is a forecast of the invaluable assistance he could render to us if he should ever find time to write on the philology of this far-away Dravidian dialect.

The loan-elements in the vocabulary of Brāhūi seem to be extensive, and it is to be feared that native words are very rapidly being displaced; yet, as the following list will show, numerous words expressive of every-day ideas are still Dravidian. The dialectal peculiarities of Brāhūi, temptingly referred to by Sir Denys Bray in his work, have not been worked out anywhere; so long as this is not done, the discussion of the Dravidian origins of Brāhūi vocabulary is bound to be imperfect. In the following discussion, therefore, it is far from my wish to be dogmatic, and the explanations will in many cases be, for obvious reasons, summary and purely tentative.

Nouns: (1) *bā* (mouth). All the southern dialects possess this word, and among the northern ones Kurukh and Malto also possess it. Tamil, Malayalam and Telugu show *v*

initially which is probably original, the *ō* of Kannada, Tulu, Kurukh being the result of a common change characteristic of Dravidian.

Gōṇḍi has *toḍḍi* which is related to southern *s'undū* (lip) < **tunḍu*.

Kurukh *ba'ana* (to say), *pēs'* (to order); Tamil *pēs*, **pēttu* (to blabber); Kannada *peḷ* (to speak); Kui *ves'* (to speak) are all probably derived from *vāy* or *bāy* (mouth). *v > b > p* is quite a common change in Dravidian.†

(2) *bē* (salt): connected with southern *uppu* (salt)?

(3) *beḷ* (grass): certainly cognate with southern *pai* (green, etc.) and Kui-Kuvi *piju* (grass). Is Tamil *pul* (grass) derived from root *pai* (*pai* + *il*), on the analogy of *kal* (stone) from *kaḍ* (hard) + *il* (formative suffix)?

(4) *bil* (bow): cf. southern *vil* (< *viḷ* + *il*).

(5) *dīr* (water): The southern root is *ir* (water) which alternates with *nīr*, initial *n* being prothetic as in numerous Dravidian words; Gōṇḍi *yer* (*y* being prothetic); Kui-Kuvi *ōju* (< *edru* < *idru* < *ir* — a common change in Kui-Kuvi, as in Tulu).

Kui has also *sidru* (water) where *dr* < *r*.

I suggest that the origin of Brāhūi initial *d* is, like that of Brāhūi initial *d* in *du* (hand), *dēr* (who), etc., from an older *dj* derived from the prothetic *y* prefixed to the root-form *ir*: *d* < *dj* < *j* < *y* < *ǃ* (the glide).

cf. Kannada and Tulu *dāṇe* (who, what) alternating with *djāne*, from southern root form *en*. For a similar origin of initial *d*, cf. Kui *diva* (to fall-vil), *dēspa* (to raise—

* See my discussion of Tamil *peyar* (name) in the *Educational Review* (1927.)

† See my "Causal verbs in Dravidian."

var-tu), etc., and note also that in a large number of forms like japa (to beg, cf. Southn. era), s̥aru (plough), jelba (to pull), siḍ (not to be), selu (wisdom), etc., the initial sibilants mark the intermediate stage. Initial d- of Gōṇḍi dēr (belch), deli (time), dōr (to leak) also has probably a similar origin. The change of y to d in medial positions, through intermediate j and dj, is attested by many instances in the Southern dialects themselves. (See my *Dravidian Notes* in the *Indian Historical Quarterly*, March 1929).

The change in Brāhūi, it is worthy of note, is not an isolated one. The influence of Afghan and Eranian initial *d* has been postulated in these cases, but the evidence of the parallel change in Kannaḍa and Tuḷu could not be overlooked; probably, outside influence had an accelerating effect.

(6) du (hand): I would similarly derive du from original s'ei (hand) which occurs with its variant kei, in every Dravidian dialect. Brāhūi itself has the verb kanning (to do) which cannot be glibly described as a foreign borrowing. It is true that Persian dost (hand) shows an initial *d*; but a change like the following is, in view of the many (Brāhūi and extra-Brāhūi) instances furnished above in (5) not at all unwarranted:

du < dju < dji < ji < s'i < s'ei.

(7) guḍ (cloth): Southern dialects have uḍuppu (dress) evidently from vud; Gōṇḍi ḍikṛi (dress) is probably from uḍuk with apocope following stress-displacement; Kui-Kuvi porbi (dress) is cognate with southern pōrve (shawl, dress, etc.).

Brāhūi initial *g* is probably developed from a prothetic guttural aspirate, as in Brāhūi kāne (*l*), kuning (eat), etc., for which see below. The change then probably was:

$g < gv < \check{v}$ which last probably appeared at first as the characteristic dorsal glide in Dravidian before initial back vowels.

It is significant that in a number of instances (see below) where southern forms have initial vowels, Brāhūi shows a prothetic back-plosive; it has been suggested that the Brāhūi forms may represent the original type and that the southern forms may have lost the initial plosive; but (a) the uniformity of all Dravidian forms other than Brāhūi in this respect and (b) the close relationship to source-roots shown by the forms which have initial vowels, militate against the theory of the dropping of the consonants in southern dialects. See *infra* for a further discussion of Br. initial K- of this kind.

(8) giras (work): cf. Kannaḍa kelasu (work) and Telugu gelasu; derivation rather doubtful; but has the form anything to do with kei, gei (to do, hand), or is it a borrowing?

(9) his (ashes): cf. Tamil ir* (ashes) alternating with nīru; Kannaḍa nīru and īru; Telugu nīvuru; Malayalam nīru; Gōṇḍi nīr (ashes).

The aspirate in Brāhūi is prothetic; and *s* was developed from *d* < *dr* < *r* (cf. Brāhūi asi, one from ondru, oru, one.)

(10) ilum (brother): cf. Tamil iyal (attachment), iyaṅgu (to feel friendship); Telugu iluvu (honour, attachment, etc.).

For the final -um of Brāhūi, compare Brāhūi kāḷum (head).

(11) Ir (sister): probably related to (10); note the feminine suffix *r* (cf. Brāhūi *r* in masir, daughter).

* For the source-root of this and a connected group of words, see my "Linguistic History of a few Dravidian Words."

(12) khal (stone): cf. southern kal (< kaḍ, hard + il), Kurukh khel has come to mean field.

(13) khan (eye): cognate forms are found in all Dravidian dialects.

(14) kāḷum (head): cf. southern kaḍai (base) from √kaḍ, hard.

(15) khaf (ear): cf. Kannaḍa kevi; Telugu kibi; Tamil-Malayalam s'evi or chevi.

The labio-dental fricative of the south has become unvoiced in Brāhūi and turned into a full labial fricative.

(16) Khākhar (fire): cf. southern √kāy (to become hot) which is contained in numerous words like kāchu, kanal, kattu, etc., cf. also Gōṇḍi kis (fire); Kurukh cicc (fire); Koḍagu kittu (fire), etc.

Note the ending of the Brāhūi word which is to be resolved into the verb formative -k- of the south and -ar or -ir, both of which are very common in the south as noun-formatives.

(17) kumb (pool): cf. kuḷam (tank) of the south. For the absorption of *l* in Brāhūi, cf. sum (arrow) from Indo-Aryan s'ulam, -b- of course is intrusive.

(18) kutām (nest): cf. southern kūḍ (nest) from √kuḍ, to join.

(19) kur (flock of sheep): cf. Tamil kure (sleep); Kann. kuri; Tel. gorre.

(20) mar (son): cognate with mari (young one) of Tamil, Mal. (in mari -y -aḍu, etc.), Kann., Tuḷu; Gōṇḍi marri (son); Kui mrau (son). Is the source-root √mar, to change? cf. Tam. maḷa (young) and maḷavu (child); Tam. marumagan (nephew); Kannaḍa mare kudire (colt) and maremaga (great-grandson). Is Tamil-Mal. māpiḷa (used to denote son-in-law in Tamil and as an honorific appellation in Mal.) from mar -piḷa, changed son?

(21) mat (he-goat): cf. Tamil māḍu (domesticated animal like cow, goat, etc.) Is there any phonetic connection between māḍu and aḍu (goat)? or is the Brāhūi word derived from mār, to buy?

(22) heṭ (she-goat): cf. southern aḍu (goat); Gōṇḍi yeṭi (she-goat); Kui oḍa (goat); Tuḷu aḍu and Tel. ēta (ram).

(23) mann (tree): cognate with southern mara, mrānu, etc.; Kurukh mann (tree).

(24) pū (worm): Tam. puḷu (worm); Tel. purugu; Kui priu, etc.

(25) parra (wing): southern √par, to fly; Tam. paravei (bird); pārū (to fly).

(26) pin (name): compare Tamil peyar (name), Kann. pesar and Tuḷu pudar. I think that all these words are derived from √pey, to speak, with the addition of the formative suffix -ir:

pey + ir → peyar, pār, in Tam.

→ pesar, in Kann. (s < s' < y)

pes'ar > pudjar > pudar (Tuḷu).

Kurukh bar (ba + ir) which means to be called sheds light on the origin of peyar, etc.

If the Brāhūi word is related, then a change like the following may be postulated:

pēr > pār > pindr > pind > pin (??)

(27) piḍ (stomach): Dravidian analogies are Kann. pude (cavity); Tam. peṭṭi (box, etc.) pottu (cavity), etc. cf. Gōṇḍi pīr (stomach), Kurukh poṭ (stomach). Some of the modern dialects of Indo-Aryan also seem to have a similar word, e.g., Hindi and Bengali peṭ (stomach).

The South Dravidian basis for "belly, stomach" is vayir (= vay, hunger + ir) and has apparently no connection with the Brāhūi word.

(28) pira (rain): cf. Kui piju (rain); Gōṇḍi pira (rain); compare also Tamil pey (to fall in a shower); Kurukh poena (to rain).

(29) tūgh (sleep): certainly connected with tūngu (to sleep) of the south. Note particularly the presence of the formative ending (without the nasal) in Br. Cf. Kui sunja (to sleep) and Gōṇḍi kung (to sleep).

How are we to explain the connection, if any, between the initial k, s and t of these forms? One feels tempted to find a semantic connection between tūngu (to hang, to sleep, etc.), and kuṅgu or kuruṅgu (to become shortened, to nod listlessly, etc.); if this were admitted, the question arises as to whether the process of change in regard to the initial sound might not have been from an original k to t through intermediate s, i.e., on the supposition that k- in this instance was the original sound. This question, however, does not admit of an easy solution, as few parallel well-established instances of such a connected change could be given. A few groups like Kann. kircu (fire), Kurukh cicc (fire), Telugu Kittu (fire) on the one hand and tī of Tamil and Kannaḍa and tū of Tulu on the other; or Brāhūi khall (to beat), Kurukh khal (to beat), Tamil kol (to kill), etc. on the one hand and tal (to beat) of Malayālam and Koḍagu on the other, afford no conclusive evidence to warrant the inference that an older k- has regularly given rise to t-.

On the whole, therefore, unless a sufficiently large number of instances representing the three stages is available, and unless, further, in all such instances the forms with initial k- are proved to be primary, no general rule or postulate could be laid down.

(30) urā (house): cf. Tamil ūr (country, village, house, etc.); Kurukh urbas (master).

Austrie has *kur*. Is there any connection between the forms of Dr. and Austrie? If so, which is the borrower?

ADJECTIVES.

(1) burz (big): Tam. peris'u (big); Tel. pedda; Gōṇḍi bors (to grow). The root is *vper* which has given rise to numerous Southern forms: Tam. perukku (to increase), pēran (grandson), etc., etc.

(2) balun (big, strong): an old word or a new borrowing from Indo-Aryas? cf. Southern valiya, baliya, balya, all connected with Skt. bala.

(3) buss (dusty): cf. southern poḍi (dust), puḍudi (dust), etc.

(4) būrun (day): cf. southern *vattru*, *varaḷu*, etc., which go back to *vay* (heat) + *ir*. It is remarkable that the old formative -r (< *ir*), so common in the South, is retained in Br. As we have seen above, more than one instance of such retention exists in Br.

(5) būsun (hot), *v*bay or *v*vay (to be hot), has given rise to a very large crop of forms common to all Dravidian dialects: Tam. vēgu, etc.; Kann. beṅki, etc.; Tel. vega, etc.; Kui vaju (to cook); Gōṇḍi ve (to cook), etc.

I have tried to trace *v*bay still further back to an original *v*ay (heat).*

(6) bissun (cooked)—*vide* (5) above.

(7) bingun (hunger)—cf. southern *vayi*, *bayi*, etc., meaning *hunger*; Kuvi bis (hunger); and also Tam. -Kann. -Mal. pās'i, etc.

(8) chunak (small): southern kinna, sinna, kīru, s'iru, etc.

(9) kub (hump-backed): *v*kur (short), southern (Tel.) gūn or (Tam.) kūn (bend of the body).

* See my paper on "The Linguistic History of certain Dravidian Words."

(10) khisun (red): *v*ke (red): southern kempu (redness), s'embu (red colour), s'evappu, etc.; Gōṇḍi kamkā (turmeric); Kurukh kem (red).

The medial s of the Brāhūi word is from *y*, the hiatus-filler.

(11) kharēn (better): southern kare (bitterness), kas'appu, kāzu (to be bitter); kur. karna (to be bitter), etc.

(12) maṇḍ (lame): southern maṇḍi, nonḍi, onḍi (lame); the initial nasals are intrusive, as the source is *v* (one). Cf. Br. mandar (short of stature).

(13) must (shut): cf. southern mūdu (to close), etc.

(14) namb (moist): connected with nīr (water)? If so, -mb may be the common formative. Brāhūi has *dīr* for *water*, but probably keeps the other form nīr here in this word.

(15) nehi (well): Kui-Kuvi neha (big); Kurukh nekha (good); Tamil -Kann. Mal. nigu (to increase, to rise, etc.).

NUMERALS.

(1) asi, asiṭ (one): connected with the secondary Dravidian root *or** which changed as follows:

oru > onḍru > ḍndji > anji > asi (in Brāhūi with the dropping of the nasal). The cognate forms in the various Dravidian dialects: onji (in Tulu and Kui), ondu (Kann.), onṭ (Kurukh), onnu (Mal.), onḍ (Gōṇḍi)—all show clearly the development or the original rolled -r of the secondary root which produced, to begin with, the group ndr with the alveolar and the spontaneous nasal (cf. kuru; kundru; mūru, mūndru, etc.).

The final t of the alternative Brāhūi form is probably introduced analogically from irat.

* See my paper "Brāhūi One and Three."

(2) irat (two): almost the same as in the south but without the spontaneous nasal.

(3) māsi, musit (three): cf. (1) above. The change is exactly similar. cf. other Dravidian forms mūji, mūzu, mūdu, mūnd, etc., all of which are developments from the root mūr, (preserved in Kann.)

PERSONAL PRONOUNS.

(1) i (I, first person singular pronoun): connected with Dravidian root *æn*.

(2) kār, oblique base of the first personal pronoun: I have suggested that the initial k- of this and quite a group of other words is developed from the aspirate involved in the production of the prothetic glide before initial vowels of base-forms. That they cannot be mere analogical intrusives is clear from (i) the frequency with which velar aspirates occur prothetically in Kurukh, Tulu and Kui, and (ii) the strong tendency in all Dravidian dialects to develop prothetic onglides.

What alternative explanations are possible for the initial k- of Brāhūi kār?

(a) The Linguistic Survey of India suggests that it may have been taken from the -k- of the dative form of the first personal pronoun. Mr. E. H. Tuttle, in a recent paper in the *American Journal of Philology*, takes more or less the same view. This explanation leaves out of account the fact that there are several instances with an initial k- of this character in Brāhūi (*vide infra* in the section on *Verbs*).

(b) Trumpp, a pioneer in the study of Brāhūi, ascribes the initial k- of Br. base kār to Balochi influence.

(c) k- initially appears, to all appearances, as an intrusive in many southern words, which alternatively show original forms without k-

(vide *infra* for instances). Can it be that k- was prefixed with a particular signification of its own in meaning, in a number of instances in Dravidian at a very early stage? The prefixing tendency, however, is foreign to Dravidian. Granting that such prefixes were employed in Dravidian, whence could this practice have been borrowed? The Austric group of languages (of which the Indian dialects Mundari, Santali are representatives), abound in prefixes and infixes, and one of the most active ancient prefixes in this family was k- (see W. Schmidt's *Die Mon-Khmer Völker*). Is it possible that Dravidian which presumably came in close contact with Austric in a pre-historic age (see Przyluski's *Un Ancien Peuple du Penjab*) borrowed the practice from Austric? But the influence of Austric on Dravidian (not only in the linguistic but in other spheres also) has yet to be investigated, and therefore nothing definite could be said at present.

In these circumstances, then, the only explanation now possible is that, as a spontaneous velar aspirate h is common in prothetic positions before vowels (p. 32 of Bray's Grammar), a fricative from which the aspirate was evolved, may have given rise to a full plosive surd initially, in *kān* and in instances with a similar initial k-.

(3) nan (we): Final n as a variant of m, a common enough change in Dravidian (cf. Tamil palan, *effect*, from Skt. phalam).

(4) ni (thou) and num (you): num gets its plural meaning in Br. from the affix -m (used as honorific particle* in the south), while the plural affix -r was favoured in the south.

* See my paper on *the Dravidian particle -m* in the *Educational Review*.

(5) tan (self): exactly the same as in the rest of Dravidian.

DEMONSTRATIVE PRONOUNS.

(1) dā (this) etc.

It has been suggested that Afghan dā (this) may have been borrowed by Brāhmi; but when we note the initial d- in dēr (who), dero (yesterday), -derai (late) and dē (water) I should think that the theory of borrowing from Afghan should fail. d- in these cases, very probably arose, y as in Kannaḍa and Tulu dāne (what), through an intermediate dj from the prothetic glide y, characteristic of Dravidian. Vide the note under dīr (water).

OTHER PRONOUNS.

(1) dēr (who): vide above.

(2) ant (what): √en > enatu > entu > ant. cf. Malayalam entu (what).

(3) arā (which): connected with southern ēdu? Br. arā and southern ēdu are both used indiscriminately for animate and inanimate objects.

(4) aṭ (how many): cf. Tamil ettenai; Mal. etra; Tel. enta, etc.

(5) maccit (few): cf. Kuvi itti (little); Mal. ittiri (little). Is initial m of Brahui then an intrusive?

(6) gira (some): √kur (little); Tam. kuru; Mal. kure (some); etc.

(7) kul (whole): √kol (to take on). Cf. the plural suffix kol, kal, gal, etc., of Dravidian dialects.

(8) muc (whole): connected with muḍi, muḍ of the south?

(9) drust (whole): connected with southern tīru, to finish, etc.?

(10) pēn (other): cf. southern vēr (separate).

VERBS.

No attempt is made below to lay down any regular laws of phonetic or semantic change. I have merely recorded the correspondences that have suggested themselves to me. Doubtful instances are indicated as such.

(1) anning (to be): The old Dravidian verb certainly furnishes the source form. It occurs in Tam., Tel., Kann., Mal., and in Tulu as a verb, its traces are found in Kurukh (argā, *yet*) and in Gōṇḍi and Kui also. I am of the view that the final formative -r of many forms in the southern and of a few rare forms in the northern dialects (including Br. for which see above) is from this ancient -ir.

The -r of the old verb appears in the tense forms of this Br. verb.

Probably the perfect tense ending of Br., -n is derived from older -ir* (n < nā < nār < r).

(2) arēng (to be entangled): cf. √aḍ (to be crowded).

(3) avalēng (to be confused): cf. Tam. āval (excessive desire, excitement, etc.).

(4) āvāning (to yawn): cf. āvi (life-breath) and āvali (to yawn).

(5) banning (to come): √yar. The Br. verb shows the -r- in some of its tense-forms. Br. like Kann. and Tulu favours initial b- instead of v.

(6) bārring (to become dry): √vā (to become hot) found in varālu, vaṭṭru, etc.

(7) bāsing (to become hot): √ve (to become hot) found in southern vēgu (to boil), etc.

(8) baṭing (summon): cf. Tam. aḷai (summon) and Tel. aḍugu.

* See my "Dravidian Notes" in the "Journal of the Bihar and Orissa Research Society."

(9) bēghing (knead): √vā (to become hot).

(10) bēling (devastate): √vel (to win).

(11) bining (hear): √vin in old Tam. vinu (hear) and mod. Tel. vinu (to hear); cf. also Kurukh mennu (to hear).

(12) bining (pick): cf. Tel. perukku and Tamil pirakku (to pick). The process of change was: the old r > dr > ndr > nd > n in Br. Cf. also Kui peska.

(13) birring (distinguish): cf. southern piri (separate).

(14) bising (ripen): cf. Tam. paḷam, Tulu parandu, etc. Is the Br. word related?

(15) biṭing (throw): cf. southern viḍ to let go, as in vil (bow), etc.

(16) cirreng (roam): cf. south. s'ittru (to walk about) and Kurukh kirr (to turn round and round).

(17) curring, cuṭṭing (to drop): cf. southern s'oṭṭu, s'ōru (to drop). It is significant that Br. has forms with both -r and -ṭṭ.

(18) dāghing (measure): cf. southern tagu (to measure), tagu (suitable, appropriate), tāppu (measure), etc.

(19) dāring (descend): cf. southern tāḷu (to descend).

(20) duzzing (steal): connected with Tel. doṅgu (thief), Kui donju (wood)?

(21) ḍumbing (cover up): connected with Kann. tumbu, (to be full)?

(22) ghurring (growl): cf. Tamil koraī (bark).

(23) *haninging (cohabit): cf. Tam. inai, to copulate.

(24) *harfing, hefing (to raise): √aḷ (to raise) common in many southern words.

* The initial aspirate of a number of Br. words appears to be a secondary development; Tulu

(25) *harring (tear): cf. Tam. aḍar (tear), etc.

(26) *hying (fear): Tam. aṇju, accu (fear); Kann. aṇju; found in Kui, Gōṇḍi and Kurukh also.

(27) *hikking (hiccough): cf. Tamil vikku.

(28) *hining (go): √ēg in Tam.-Kann. iṅg, ēg (to move) and Kurukh ēk?

(29) *hoghing (weep): cf. Tam. aḷu; Tel. eḍtsu; Kui lī; Kurukh olkhna.

(30) *hūlaing (howl): cf. Tam. ṇlai (howl).

(31) *huring (see): cf. huḍ, hur; Kurukh ēr; Tam. tōṇḍru; Tulu su, hu, tu; Kui tōṅg; Tel. tsūḍu; Kann. chūpu, etc. The proto-form is* tur from tu (light, etc.) + ir.†

(32) illing (leave): cf. Tam. illi (branch).

(33) karghing* (shear): √ar, to cut; cf. Tam., Kann., Mal. aru (to cut) and narakku (with the intrusive nasal). Gōṇḍi ark (to cut); nark (to cut meat), and Kui aska (to cut).

(34) karring (scrape out): cf. Tam. karaḷu to scrape out; Tam. s'oraṇḍu, etc.

and Kui also show in initial positions such secondary aspirates. Dravidian shows a strong tendency to develop prothetic glides before initial vowels of words; and the initial aspirate of many Kui words like hēru (plough), etc., has cropped up not as a foreign intrusive but in connection with the production of the glide, as alternative Kui forms with and without initial s- show. It is, I think, not unwarranted, therefore, to consider that the initial b-, k- and d- of a few sets of Brāhūi words were developed in connection with the production of the glides which themselves seem to have dropped off. Foreign influence was probably vigorous in helping Br. to fix the aspirate and the plosive, and drop the glides.

† See my Dravidian Notes in the *Educational Review* (1927.)

(35) kishking* (pluck off): cf. Tamil ilu (pull out); Kurukh ich (pluck off).

(36) koṭing* (break): cf. Tam. oḍai (break). Cf. also Gōṇḍi vōr (to break) where initial v- is developed from the dorsal on-glide.

(37) khalling (beat): cf. Kann. chal (beat) and Tam. tal (beat). For a possible connection between initial k- and t-, vide discussion above.

(38) khaṇing (see): cf. kaṇ, (see) and kān, (to see) of the south.

(39) kharring (to sprout): cf. Tam. kadir (a sprout); Kurukh khōrna (to give out new shoots); Gōṇḍi kōrs (to sprout).

(40) kharring, khaling (to walk): cf. Tam. kāl (leg), sel, etc., (to go). Quite a large number of forms with initial ch or s' have developed in the South from original √kal (to go) represented in Brāhūi.

(41) khasaling (to chew): cf. Tam. ayavu (cud).

(42) khoshking* (to rub): cf. Tam. orai (rub).

(43) khuling* (to fear): cf. Tam. olai (shake), kulungu.

(44) lakking (to lap up): cf. Tam. nakku (to lick).

* For the initial k- see note above under kân the oblique base of the first personal pronoun. It is curious that Tam. shows a number of cognate forms, some with and others without initial k: are (nearness); karai (shore); arugai, karugai, olai, kolai (shake).

Whether the k- in all these Tamil words was purely intrusive or whether it was developed in connection with the production of glides as in Br., Kui, etc., it is difficult to say. For other explanations of a few cases of initial k- in Dravidian, vide the discussion under kân, the oblique base of the first personal pronoun.

(45) makhing (laugh): cf. Tam. ili, nagil (smile); Kurukh alkhna (laugh); Tel. navvu.

(46) manning (become): cf. Tam. mannu (to remain), maṇṇu (earth); Kurukh, Gōṇḍi, Kui have man (to become). This is an auxiliary verb which should be traced ultimately to ul (become). I have shown elsewhere* that man, men, etc., of Dravidian should ultimately be traced to ul, the ancient root. It has to be noted that, while the ancient ul and its variants are retained as auxiliary verbs in the southern dialects, the northern Dravidian dialects use man, men, etc., in the stead of ul as the auxiliary verb. How is this to be explained?

Some of the Indian Austric dialects possess a form: mân, as an auxiliary verb. While it would be going too far to say that Dravidian borrowed this form, it may, I think, be safely postulated that Austric mân may have (1) helped forward the change of Dravidian ul to man, etc., and (2) induced the central and north Dravidian dialects to use the later form with initial m- as the auxiliary verb.

(47) manning } (obey) = cf. Tam. vanaṅgu, enaṅgu, aṇaṅgu; Tam. maruṅgu, etc. The original roots are ar, aṇ or aḍ indicating proximity. Numerous forms have arisen in Tamil from these roots, some with initial v (from v, the on-glide) and others with m (developed probably from v through b). Cf. Kurukh manna (obey); Tam. manni -kkḍ (obey).

(48) miring (drive out): cf. Tam. veraṭṭu.

(49) mukking (stammer): cf. Tamil vikku (stammer).

(50) pinḍing (beg): cf. Tam. veḷ (to request, desire); Tulu boḍu; etc.

* See my *Dravidian Notes* in the *Indian Historical Quarterly*.

(51) pirghing (break): cf. Tam. paḷir, pīlar, etc.

(52) saling (stand): cf. Southern s'el (enter) and el (rise).

(53) tining (hold): cf. Tel. tisu, etc.

(54) ṭahing (agree): √tag (suitable)?

(55) tamming (fall): cf. Kurukh tar (fall); Tel. taru (to go); Tam. tarai (to fix).

POSTPOSITIONS AND PREPOSITIONS.

(1) parāgh (side) = cf. Southern forms from √par in Tamil pattru, parāḱku (love, need-ness), etc.

(2) nēma (side): connected with Southern emai?

(3) keragh (lower side): cf. Southn. kiḷ, etc.

(4) mon (front): cf. Southern mun (front) and a host of other words.

(5) rah (bank): connected with Southern aru?

(6) guḍ (after): cf. Southern kuḍ (to join) and Kurukh guṭi (with), etc.

(7) pizzer (behind): forms from √pir found in the South.

(8) khurk (near): cf. Tamil kiṭṭakke (near).

ADVERBS.

(1) aino (to-day): cf. Tam. indrei (to-day), etc.

(2) dēro (yesterday): cf. Kurukh s'ero.

(3) begai (evening): cf. Mal. and Tulu vaigi (late or evening).

(4) elōḍe (not to-morrow): cf. √el in Kann. elli (to-morrow).

(5) annā (still): cf. Tamil indrum, innum; Tel. inka; Kurukh argā etc.

A FEW GRAMMATICAL CATEGORIES.

(a) *Inflectional Endings.*

(1) The case-terminations are distinctively Dravidian. The mere base stands for the

Nominative Sing. The Dative-Accusative ending -e is, in my opinion, a modified demonstrative particle, like Tamil Acc. ending -ai and Mal. Acc. ending -e. The part played by demonstrative particles in Dravidian is beyond all doubt, though questioned by some scholars recently.

-e should have stood originally for the Accusative only. The common Dravidian Dative affix is -k (from *kei*, to do, hand). This common affix exists in the Brāhūi Dative of Interest and in the affixes *ik*, *isk* (pages 45 and 46 of Sir Denys Bray's Grammar).

The Gen. Sing. *nā* is a modified form of the old Dravidian affix -in. The Pl. Gen. *ā* has been rightly compared by Sir Denys Bray to Tamil Gen. affix -a.

The Ablative affix -āa is, in my opinion, derived through phonetic decay, from the original post-positional participial *irundu* which occurs in many dialects.

Similarly, the Conjunctive ending -to, the Instrumental -aṭ and the Locative -aṭi have been correctly related by Sir Denys Bray to *toḍu* (to touch) and to *atu*, the demonstrative, respectively.

Traces of the plural ending -gaḷ and of the epicene -ar are given by Bray, beside the usual -k (from *koḷ*).

I have, in a previous number of this journal, pointed out the relationship of Brāhūi tense-forms to common Dravidian. Here, I shall just mention a few other peculiarities of Verb-forms:

(1) The causal formative -if, is certainly a modification of Dravidian -pi (from *vei*). The change of p to f in Brāhūi has been noted by Sir Denys Bray.

(2) The various types of compound verbs in Brāhūi pointed out by Bray are characteristically Dravidian, and analogies could be supplied from one or other of the other Dravidian dialects.

(3) The Passive—a comparatively recent formation in Dravidian—is formed in Br. by the suffix -ing being tacked on to the Inf. form. Infinitive ending -ng contains the idea of passive action denoted by the affix -g (from *kai*). Cf. Tamil affix -ng in *erāngu* (to descend), etc. The use of the affix in Tamil is connected mostly with Intransitive Verbs denoting a passive action. The use of the affix, therefore, in Brāhūi to induce a passive signification for a transitive idea has nothing strange in it, though no other Dravidian dialect furnishes instances of the use of -ng as a Passive-forming suffix.

THE SCHOOL ARITHMETIC

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THE NEW PSYCHOLOGY IN THE SCHOOL ROOM.*

THE New Psychology lays great stress on the Unconscious; and the Unconscious contains racial experiences and suppressed or repressed ideas, i.e., ideas consciously or automatically pressed down below the level of the Conscious. But there is no censor in the mind strong or vigilant enough to keep all the contents of the Unconscious beyond the threshold or circle of the Conscious at all times. In our normal waking hours we suppress tendencies which we should find abhorrent, or which we may not approve of, or which we repress for mental peace. But these tendencies surge up in the form of dreams while we sleep. That is not all—even while we are supposed to be wide awake, many of our tendencies and predispositions escape our vigilance and proclaim in various manners the secret of our true nature.

In the school room we very often find the working of what the New Psychologists call Complexes. A Complex is, as Dr. Creighton Miller puts it, a constellation of repressed ideas. "Let us imagine that an idea X becomes for some reason painful to the conscious mind, an idea that we cannot think of without some painful emotion. Now that idea, like all other ideas, is the centre of a constellation of ideas. Because X is painful, we tend to repress it and that constellation of ideas associated with it becomes repressed also, and goes from the Conscious into the Unconscious and in so doing the whole group becomes coloured by this generally unpleasant association. The constellation is no longer

* A Paper read by Mr. Anjilvel V. Matthew, B.A., B.T., St. Thomas High School, Honavar (N. Kanara), at the Poona session of the Bombay Presidency Secondary Teachers' Conference.

called a constellation when it is below the threshold of consciousness. It is now called a complex."* But when an idea or a group of ideas passes into the Unconscious, it does not thereby become inactive or powerless; on the other hand, from there it exercises a subtle sway over our physical and mental activities.

A Complex may sometimes manifest itself in some trifling, harmless or silly predisposition or prejudice, such as the unexplained dislike of a certain man to some particular colour or object or word. In other cases the manifest results of a Complex may be more serious. If a man or a woman has an extreme and unreasonable aversion to or fear of, say, cats or dogs or cows or a closed room or flowing waters, there is ground for a psychoanalyst to probe into his or her unremembered past. When things that do not in any way trouble a normal individual cause much concern to an otherwise normal individual, we say he or she is subject to some complex. In cases of insanity we have extreme instances of unadjusted selves and complexes.

In a class-room we may find manifestations of such complexes as creed complex, sex complex, caste complex, inferiority complex, father complex, and mother complex. Here we cannot pause to consider all these complexes at any length. If a boy or a girl is inordinately taken up with or concerned for his or her creed or caste, or is too shy, or disturbed over sexual matters, the probability is that that individual is grappling with some repressed emotions. The mention of something that has some near or distant connection with the repressed group of ideas or feelings makes a stir in his or her unconscious self and we bystanders observe that according to our

* Miller: *The New Psychology and the Parent*.

standard of judgment the resultant exuberance of feeling is vastly out of proportion to the trifling cause of disturbance which occasioned the outburst. This is how a complex works. We shall consider at some length two of these complexes—the father complex and the mother complex.

The Father Complex gives us evidence of over-strict discipline imposed in infancy. The effect on the boy of the father's severity is clear in one of two ways: either he becomes a rebel with a fearless disregard of authority and of the claim of his society (it is such boys that give the greatest trouble to the teacher-disciplinarian), or he becomes a sulking, cheerless fellow, easy to resent and over-sensitive to criticism. (1) As for the rebel, all of us may know of sons rebelling against their over-strict fathers in their own part of the world; hence no more need be said about them here.

(2) The sulkiness we often find in certain boys of the class-room may be due to some remediable physical defects—defects of the eye, ear, mouth, nose, throat or tooth—the correction of which often results in a spontaneous awakening of the cheerfulness and vivacity of the child. In very many cases, however, it is the home environment, the training the child receives, the parent's attitude to him, that is primarily responsible for the sulking. The healthiest child in the world is liable to sulk if his parents create for him a sulk-breeding environment. The petty fault-finding habit of the father, his constant criticism of the son, the adverse comparison of his son which he commonly makes with the children of other people—these make the child sulky at home, and when he comes into the class he carries his sulkiness along with him there. There he may also show marks of

another complex—the inferiority complex. Under these circumstances a wise teacher is careful not to increase the difficulties of such pupils by his impatience, contempt, or a false sense of superiority. He is anxious not to make the boy's life more miserable by the addition of a new complex—a teacher complex.

The Mother Complex is the opposite of the Father Complex; it shows the after-effects of over-petting. The mother's son is not allowed to have any troubles; all obstacles are removed from his way, all paths made easy. He is encouraged to approach the mother for the clearance of all difficulties. When such a child goes to school, he is found to be quite an amiable and docile child, anxious to run errands for the teacher and to seek his help on encountering the slightest difficulty in his lesson. It is difficult not to like such children, in spite of their proving a nuisance at times. Their dependence is flattering to the teacher, in that it affords him scope for the display of his superior knowledge and skill, without himself consciously feeling that the motive for self-display is working in him. The teacher's task is a delicate one; he should encourage independence as well as give help when needed.

We have already suggested that the instinct of self-display is one of the motive forces that work in the teacher. In the class-room he finds much scope for self-display and self-assertion in his opportunity to instruct, power to keep order, and authority to direct the energy of his pupils. But the instinct for self-display and self-assertion is not the monopoly of the teacher. The little child who wants to excel his fellows acts under the same impulse.

It may even be that the child, if he cannot command the notice of his class by his superiority, may try to do so by his unquestioned weakness. This is an astounding statement to make; but this has been the contention of a growing number of psychologists of the school of Freud and Jung. According to them, the child's inability to do sums in Arithmetic may be as much a means of attracting notice as his ability to decline difficult words in grammar. Even in such cases as asthma or stammering, so they believe, the unconscious motive may be the same, to draw to oneself that notice which otherwise one could not have received; and that like other cases of neurosis they also may be cured by Psycho-analysis, the discussion of which however does not come under our province. Even if we as teachers are not whole-hoggers with reference to the New Psychology, it behoves us to think hard on the means whereby we may give more chances of self-expression to the young folk entrusted to our care.

In dealing with the bearings of the New Psychology on the problems of the school-room, we have to consider such hypothetical mental devices as Identification, Projection, Compensation, Rationalisation and Transference of Affect.

All men take delight in the achievement of distinguished people. When we see them excelling on the field, stage or in the oratorium, we cease to think of ourselves for a while and identify ourselves with them. We forget our real selves for the time being and see ourselves ideally in the heroes we admire. That is how huge crowds assemble to witness the performance of an athlete like Prof. Ramamurthi; to see the person of a poet like Tagore or a saint like Mahatma

Gandhi; to hear the eloquence of a Shastri or the music of a Bala Gandharva. The same principle of identification is at work in the public and semi-public functions of our schools. Boys and girls admire the best songster, the best athlete, and the best speaker among themselves. The process of identification is a powerful factor in the moulding of character. The training in our schools must enable our youth and children to identify themselves with the noble characters of history. The drama as well as the teaching of history and literature does something in this direction; but there is ample scope for doing more than is done at present.

It is our common nature that when we fail in anything we want somebody on whose shoulders we may lay the responsibility for our failure. A bad workman quarrels with his tools. This is what the New School of Psychologists call "Projection." When a boy fails in his examination, he honestly thinks that the fault is not his, but that of his teachers "who were prejudiced against him." Similarly the inefficient teacher conveniently forgets his own inefficiency and believes that the poor results of his class are due to the indifference and unsteadiness of his boys.

The school boy who fails to do his work at home is sometimes ready to point out to the teacher the mistakes of his fellow-pupils. Boys who behave very selfishly at home are sometimes found busy with "social service" for their class-mates. They are urged by an unconscious motive to engage in these activities in order to compensate for their moral defects elsewhere. The wise teacher who understands the real state of affairs will encourage all the noble activities of his children and at the same time will endeavour to lead them to a life of consistent goodness.

"Love me, love my dog" — thus the proverb; and it implies a psychological truth. Boys begin unconsciously to love or hate a person or a thing because the latter has been associated with some one or with some thing that aroused in them a similar feeling. That is how children learn more readily under teachers whom they love than under equally capable teachers whom they do not love. This is on account of what modern psychologists call "Transference of Affect," which implies that the feeling towards a teacher is transferred to his work. It recalls to us the importance of the teacher keeping friendly relation with his boys, which is the basis of good teaching as well as the foundation of sound discipline.

Modern psychologists give great importance to suggestion and we cannot close this paper without a reference to it. Suggestion exercises a powerful influence on the Unconscious and therefore on all our life. Negatively, the teacher should be careful not to dub even the most backward pupils as dull and incapable of improvement. The marvellous success of the famous George Junior Republic of America and of its English imitation the Little Commonwealth was due to the faith of their founders

in their "Wicked boys." The faith of the teacher in his boys — and this is the positive aspect of suggestion — inspires self-confidence in them and stimulates them to efforts beyond expectation. The teacher need not repeat in Cone fashion twenty times every day that in every respect his boys are making sure progress. It is necessary however that he should be a man of patience and sympathy, who has an insight into the character of his boys and an honest confidence that the good in them will in due time bud, flower, and fructify.

Also some knowledge of the laws of the Unconscious will stand him in good stead in understanding his boys, and perhaps more, in understanding himself. If in the spirit of the dictum: "Man know thyself," he seeks to understand his own nature and along with that enters into the spirit of the child and seeks to understand, sympathise with, and inspire the little ones entrusted to his charge, he is sure at the end of his life to enjoy the satisfaction of having spent a useful life, though may be the world does not recognise the humble but solid service he has rendered it.

GENERAL MATHEMATICS (TAMIL RENDERING)

By

V. RAGHUNATHA AIYAR, B.A., L.T.

Deputy Inspector of Schools, Madura Range.

In the Press.

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The Tamil rendering of the above book is specially issued so that pupils in the Tamil districts who are weak in General Mathematics may secure with ease a decent degree of efficiency in it. A course through the book may reveal that offering to answer the S. S. L. C. General Mathematics Paper in Tamil is a point of vantage indeed to the pupils.

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REORGANISE THE SECONDARY SCHOOLS

By Mr. M. V. SUBBA RAO.

IN spite of the introduction of all new and up-to-date methods of teaching in schools, we find a good deal of deterioration in the mentality of the present-day generation of school-boys. What I can assert from my knowledge of many of the regular students in schools and colleges is that a student who comes out in ranks in every one of his School and University examinations is generally found to be far below the level of even an illiterate peasant in the knowledge of matters of everyday occurrence. He is wanting in that commonsense which can be acquired only by coming into contact with the outside world once at least in a week. By the time he finishes his career, a regular student is found to be rather ignorant of men and things in general and at times rather sheepish too. Physically too he becomes a wreck in life.

This is all due to the kind of instruction, secular and physical, that is now imparted in schools. In my humble opinion, a candidate of the School-Final class should receive that much of general culture which is necessary and sufficient to enable him to discharge his duties as a citizen of the State, even if he be obliged to discontinue his studies after completing his S.S.L.C. course.

The world around us is progressing on scientific lines, and in every line of the newspaper that we read we can have a glimpse into the realm of Science. So what would insist first and foremost in the reorganisation of the S.S.L.C. scheme is the knowledge of elementary notions of all important scientific productions and the true

and patriotic history of our nation. These should form part and parcel of the compulsory subjects now called the 'A' group. Now-a-days we find these subjects, 'Elementary Science and Indian History' in the B group subjects. A boy whose life and energy is being wasted to secure a pass in the S.S.L.C. examination, never takes care even to listen to those subjects now classified as the B group. Even the teachers who teach these subjects pity the condition of their students who are expected to cram a good number of books, detailed and non-detailed, for the examination and so handle the subjects more as a formality than meant to be of any use to the students concerned. But commonsense has come to mean a knowledge of all the common things about us, as for instance, of motor-cars (common vehicles of conveyance), tram cars, Railways, telegrams, telephones, wireless, broad-casting and photography. These are the subjects about which our students should know before they can boast of an S.S.L.C. certificate. The rudimentary and dry notions now taught in Form VI might be finished in earlier forms, and as the standard of instruction at present is very low, it should be highly improved both in the study of the languages and the sciences.

As for the study of languages, by saying that the standard should be raised, I do not mean that the number of text-books should be increased. On the other hand I would suggest that the number of detailed and non-detailed text-books be limited to only one or two standard books, books which stand unrivalled both for matter and style, and the rest of the study be confined to general study as in the days of the Matriculation Examination. There should be one paper on the detailed and non-detailed text-books

and another on General English dealing with the knowledge of current politics, scientific subjects, newspaper articles and other similar topics of the day. If this much of standard is insisted upon, we can have better citizens in future, citizens who can adorn the places in Taluq and District Boards, Councils, Educational and Legislative, with better grace and credit than some of the members do at present.

To add to these, there is another subject which can be so handled as to bring in its scope various topics of the work-a-day world and that is Elementary Mathematics. The list of current prices, the list of rates prescribed by the local Union, Municipality or Corporation, the schedule of rates of goods and coaching tariff, the Stamp duties, Court-fees, Registration fees, the proportion of ingredients in the mixtures to be given for common ailments, in the preparation of articles like soaps, pain-balms, vaseline, etc., can all be utilised in imparting instruction in Elementary Mathematics. If some of the dry topics like the so called 'Contracted Methods of Multiplication and Division' are eliminated and a working knowledge of the logarithmic tables is taught to the students, and if absurd sums such as '2 men = 3 women = 5 boys and if 7 men, 4 women and 3 boys can do a piece of work in 16 days, find in how many days 12 men, 3 women and 18 boys can finish it' are altogether omitted, I hope much of the time now being wasted in schools can be utilised with greater advantage for the students. Elementary Mathematics should be quite elementary and sums on Simultaneous Equations too may safely be omitted but elementary and interesting notions of all phases of mathematics in every walk of life should be given.

As for the optional subjects now classified as the 'C' group, they should, in my humble opinion, be abolished altogether and utilitarian subjects like cycle and clock repairing; soaps, vaselines, pain-balms, and hair-oils manufacturing; photography and such others be introduced instead. Every student may be asked to select only one subject from among these utilitarian subjects, and specialise it from Form IV onwards and schools in the same locality should be recognised only when they offer different subjects for specialisation. Such specialisation will help the politicians to solve to some extent the knotty problem of unemployment now staring us in the face. It will also enable every youngster to eke out his own livelihood even though he cannot obtain any clerical job after passing his S. S. L. C. Examination.

More than all this, the Physical Instruction in Schools must be thoroughly revised. It is now unmanly and a source of ignominy and shame to the whole Department. The cry against this unmanly exercise is growing vehement and those officials in higher ranks never come face to face with that ruffian in the street who takes the privilege to point out that we are making the future citizen of India more and more degenerate and that 'we are thereby abetting the cause of those Imperialists whose policy it is to see Indians degenerate in as short a period as possible.' I therefore appeal to the higher authorities to see that the courses in Physical Education in schools are immediately revised. Our native exercises are always less costly and more effective than any other system now in vogue, as is the case with the system of Ayurvedic medicine. All that is wanted is a good long shed for the Gymkhana activities as is to be found in the Y.M.C.A. at Madras,

but no costly apparatus is needed. A few Indian clubs, dumb-bells and developers costing about a hundred rupees is all that is necessary for the system of Physical instruction under our contemplation. The very same apparatus may survive for decades together. It is high time that we should realise the importance of regular exercises in schools and impart compulsory Physical instruction every day. Now-a-days the farce of an unmanly drill is played only once in a week and this is all a sham and so should be speedily abolished. In order to impart regular daily Physical instruction, it is essential to curtail the length of the school-day by one hour at least. The present length of the school-day is abnormally long and tedious and no substantial loss will be sustained if the total length of the school-day be fixed at 4 hours a day.

To add to all this, the assistant's place in a school must be made more honourable. Till then they cannot co-operate with the Department whole-heartedly. They should be given better pay, and better training. The training as it exists at present is all a sham. No opportunity is afforded to the novice to come into contact with the outside world, no facilities are provided to acquaint him with at least rudimentary notions of law of which even a country tout can boast of. Everybody who has studied in a school can afford to comment upon the ways and means of a school-master while the school-master himself is not aware of the rudiments of other professions, as he has been brought up and trained within the limited sphere of a school. Moreover, the public holds a teacher responsible for the kind of instruction imparted in schools but nobody realises that he has no voice in any of the Councils or

Senates that regulate the system of education in that locality. The want of representation of the assistants in all the Councils connected with education is a great drawback, which the Ministers in charge of Education must have the generosity to rectify as soon as possible. Over and above all is the tyranny of supervision and inspection. The inspection of a school is a downright farce, as everybody knows. It sounds absurd that the class of a Senior Science Assistant in a High School could be inspected even by a Junior Deputy Inspector of Schools, who may at least be an L.T., fresh from college, who by some accident or through some high recommendation, might have been drafted into the Inspectorate direct on 50-2½-75. The Deputy or his junior Inspector who has always been handling and inspecting classes up to the eighth standard assumes an air of superiority and criticises the lesson of the Senior Assistant. This is all a sham, a farce, not even worth the mention. The position of the Assistants in High Schools must be made more honourable. As you trust the lecturers in colleges, so should you have entire faith in the L.T.'s and other experienced trained teachers in a High School. Divide a High School into various departments: Languages, History, Mathematics and Science, and hold each Senior Assistant responsible for the work in his subject for the whole school. Revision and comparison of the S. S. L. C. results can be done by a single officer and his establishment for the whole Presidency.

If still we want the present Inspecting Agency to work well, let Masters of Arts with five or six years of service in High Schools be appointed as Personal Assistants to Educational Officers. Only let the Personal Assistant and the Educational Officer be people who have specialised in different subjects (History or Science). It is only then that the working of all High Schools in a district could be judged by an efficient and common standard.

If the costly farce of an inspection is abolished, if better representation on the educational bodies is granted to assistants, if the courses of instruction, mental and physical, are modified as have been pointed out above, the Secondary Schools will serve some good purpose but not otherwise.

METHOD IN THE CLASS-ROOM

Many teachers have adopted as a class-book Principal Martin's "English Dialogues," and yet there are some who, while they appreciate the merits of the book, still hesitate to use it lest their boys should **cram** some of the dialogues. The fear, of course, is groundless; but, in any case, they need not worry about this, for even if a few boys display so much zeal as to learn by heart even half a dozen dialogues, no harm is likely to result therefrom. This is, however, by the way.

For the present, our object is to direct the attention of all teachers to the varied uses to which Martin's "English Dialogues" can be put.

(1) ESSAY-WRITING.

The boys may be asked to read at home certain dialogues—those containing pros and cons—and next day may be asked to write an **essay** on a subject discussed in one of these dialogues.

(2) LETTER-WRITING.

The boys may be asked to read at home four or five dialogues selected by the teacher, and may then be asked some days afterwards to write a **letter** on a subject having some sort of relation to the subjects of these particular dialogues.

(3) SUMMARIZING.

The boys may be asked to **summarize** a dialogue suitable for the purpose.

(4) STORY-WRITING.

The boys may be asked to **narrate** in their own words a fable or story told in the form of a dialogue, after having it read once in the class.

(5) DIRECT-INDIRECT.

Some of the dialogues may be utilised for exercise in **Indirect Narration**.

(6) IMAGINARY DIALOGUES.

Two boys may be asked to read a dialogue in the class, each boy reading the part assigned to him. Then any other two boys may be asked to carry on conversation on the same subject, the teacher encouraging them to use their own words and ideas. After this preliminary exercise, the class may be asked to write a **dialogue** on the same subject. The result will be found encouraging both by the boys and the teacher.

And all that is said above illustrates the importance of method in the class-room, for no matter how good a text-book may be, half its worth is lost if it is not used in the right way.

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THE REVISED S. S. L. C. SCHEME.

By Mr. A. PERUPETTAN, B.A., L.T.,
Headmaster, U. L. C. M. High School,
Bhimavaram.

THE S. S. L. C. Reorganisation Committee has issued the Draft Rules and Regulations for the Revised S. S. L. C. Scheme. In spite of the cries and criticisms and suggestions of the teachers throughout the Presidency, the Committee has managed to give birth to a scheme which will be found to be tenfold worse than the old scheme, with all its evils aggravated.

1. The S. S. L. C. Book is to be opened in IV Form and kept on to the end of the course. This system of recording the progress of the pupils from class to class has not served nor is going to serve any useful purpose except multiplying the work of the headmaster who is already overburdened even without it.

2. The distribution of subjects into Groups A and C is not better than the old distribution, the subjects in the two groups overlapping each other.

3. The courses prescribed in the several subjects are too ambitious and defeat their own purpose. The Committee has not considered the possibility of following up and rounding off in the IV Form the Geography, History and Science courses covered in Forms I to III. When that is done, Indian History, Bird and Animal Studies and Elementary Physiology may be stopped, and Experimental Physics and Chemistry and Outlines of English History (or better World History) may be undertaken in Forms V and VI and the School Final Examination held in these subjects only, the examination itself being conducted by the teachers and inspecting officers of the several districts or language areas. Interest

in the discontinued subjects may be kept up and increased by means of library books, museum, geography and history halls.

4. In languages (English and vernaculars) it is high time that texts for non-detailed study be discontinued and stress put on the other hand on the work of library periods, a record of which may be kept by the boys and teachers. As matters stand, boys read extra books for examination and not for pleasure and self-improvement, for which we must create a taste in the boys as early as possible.

5. As for the marking and promotion systems, the headmaster may be specially directed to examine the boys' record of class-work and attach more importance to the daily work (neatness, exactness, regularity, etc.) than to the formal examination. These records (monthly and quarterly) may be kept at school for scrutiny by the inspecting officers. The obsession of examination must be done away with.

6. As for the time of examination, etc., as matters stand at present, the revised scheme contemplates perpetuating the same, examinations come off long before the school puts in 180 days of attendance so that the School Final boys are expected to attend school even after the examinations close; which is an unwarranted hardship on boys and teachers. The short term work for the examination-going boys is only for about 30 days, and hardly any work is done or can be done in this short period.

It would be far better to finish the School Final examination before Christmas and in the short term specially coach up boys intended for college courses and prepare them for the University Entrance examination. Similarly boys intended for technical courses may be specially prepared for such examinations.

7. Para 6 introduces another drawback of this present system, namely, the same examination is made to serve the purpose of a School Final test and of the University Entrance test.

The sooner this is rectified the better for the boys and teachers. All are not intended to take nor fit to take the University courses of study. Why then should all be put through the same mill and ground to the same polish?

8. The secondary education as it is conducted at present takes boys away from their home life and creates a distaste for agriculture and other staple occupations of the country on which the country largely depends. The subjects taught, the course

covered, the home-work set, the school sessions and hours must be such that they will leave boys time to help their parents in their occupations out of school hours and incline them to bring to bear the information gathered at school on these occupations for their improvement. Boys who show special aptitude for higher studies may of course be treated specially.

These are the outlines of some of the glaring defects of the proposed scheme. I call upon the members of the teaching profession throughout the Presidency to lose no time before they get up public meetings and formulate their views with the help of the educated public as well as that of their own guilds, associations, etc.

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vide *Fort St. George Gazette*, Part I-B, p. 547, dated 1-11-1927.

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By T. V. SUBRAMANIA AIYAR,

Commercial Instructor, Govt. Muhammadan College, Madras; Author of
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THE TRUE IDEAL OF A UNIVERSITY.

By

MR. ABHAYAKUMAR GUHA, M.A., PH. D.,
Lecturer, Calcutta University.

Many of us do not yet thoroughly realise the importance of a teaching University. Ever since the creation of the Calcutta University in 1857 down to 1914, we have been used to an affiliating type of University, which is primarily an examining and regulating body, and not a teaching body. The primary function of such a University is the conducting of examinations, and by means of examinations and Regulations secure continued efficiency. The training of men for life is left to Colleges established primarily for preparing candidates for examinations.

But the traditional idea of a University in Europe and America is different. The word University comes from the Latin word *Universitas*, a Corporation. The word *Universitas* is met with in a manuscript of the early part of the thirteenth century relating to the University of Oxford. There the phrase *Universitas magistrorum et scholarium* occurs, which means a Corporation of teachers and scholars. Thus fellowship and research were the characteristics of the first Universities, and the same traditional idea has been handed on to their successors. We read in the Sadler Commission Report that "According to the accepted view of almost all progressive societies, a University ought to be a place of learning, where a Corporation of scholars labour in comradeship for the training of men and the advancement and diffusion of knowledge." In the words of Lord Haldane, "a University is a place of research, where the new and necessary knowledge is to be

developed, and it is further a place of training, where the exponents of that knowledge—the men who are to seek authority based on it—are to be nurtured and receive their baptism." Exactly the same view has been taken by Sir Robert Falconer, the President of the University of Toronto in Canada. To quote his words: "A University is a society of persons whose primary function is to educate and to extend the boundaries of knowledge." In the first place, every University must be a society of persons who labour in comradeship for the advancement and diffusion of knowledge. It is common experience that enthusiasm rouses enthusiasm—that enthusiasm is roused by the personal contact of mind with mind. As iron sharpens iron, so does the countenance of a man his fellow-teacher. Men work together, contribute new ideas together, and a disinterested fellow-teacher pursuing earnest researches even in an alien field may inspire another with needed enthusiasm just when the routine of professional duties is proving prejudicial to one's intellectual vitality. Thus a society of intellects is essential in a University.

There must not only be a society of scholars and teachers, but they must go on extending the bounds of knowledge. In other words, they must carry on research. "Research means investigation, the tracking of truth, and truth may lie either behind us or before." It must not be thought that the term research belongs properly to natural science alone, but research in humanistic studies is research as well. In the field of natural science, research is carried on for discovering the hitherto unknown properties of nature. In the field of humanities, it mainly deals with the knowledge of man's thoughts and experience in the past

and the present. As a man of culture, we must know human nature, we must know the past histories of nations, we must be acquainted with the various political and economic problems which face us every day. The knowledge of the past history of man's thoughts and experience is as important as the research which produces aniline dyes or the optic glass.

It is common knowledge that unless a study is founded on research, it will die. A teacher who gives the same piece of stereo-typed information, year in and year out, fails to inspire his pupils. A teacher must always be a learner. If he wants to rouse enthusiasm in his pupils, he must not only teach students the methods of research but go on adding to his stock of knowledge either by personal research or by keeping himself acquainted with the research of others. A stagnant pond refreshes none. But a lake which is receiving a constant flow of living waters can alone be a source of vigour and health to others. By referring to the past history of the Universities of Europe it can be shown that when a University lost its zeal for advancement and diffusion of learning, it became sterile. The University of Paris which was the seat of learning for centuries, "ceased to be a great hearth of intellectual activity," when it lost its spirit of research. Medicine, Law and Theology were cultivated there without an ideal. In the 13th century, Oxford became "a mere aggregate of Colleges and privileged halls," and in the 14th century when Cambridge subserved merely the purposes of worldly ambition it ceased to be a centre of higher culture. Thus we see that fellowship and research are essential features of a University. Judging from the above ideal, the Indian Universities down to 1914 were

not Universities. They were not societies of scholars, but only of administrators. They had nothing to do with the training of pupils, but only with their examinations; they were not concerned with learning except in so far as it could be tested by examinations. The Colleges were the only places of culture. But as the real function of these Colleges lay in preparing students for examinations, they were virtually so many coaching schools. As they had the same curricula and had to pay too much attention to examinations, they were of the same model. Their teaching was limited to the ordinary conventional subjects, and their teachers within their own subjects were prevented from teaching things which they knew best. Thus the students did not value culture for its own sake, but mainly as a means for obtaining marketable qualifications. Hence the Calcutta University Commission (1917-1919) recommends that "examination reform is a necessary condition for the reform of education."

We read in the Sadler Commission Report that all the Indian Universities were constituted after the pattern of the University of London. Since 1884 there had been a growing opinion in London that the University ought to have teaching functions and that it was no true University which did not undertake teaching. In 1898 an Act of Parliament transformed the University of London into a teaching University, while keeping intact its system of examinations for external students. In accordance with the recommendations of 1902, the Indian Universities Act was enacted which provided for the teaching function of the University and the Regulations were framed to carry out in detail the principles laid down in the Act. As the Act did not make any provision for the inclusion of the Colleges as

constituent Colleges of the University, Indian Universities were confined only to post-graduate teaching in Arts and Science.

Though the Indian Universities Act was passed in 1904 and the Regulations were framed some time after, teaching work on an adequate scale was assumed only by the University of Calcutta so late as in 1914.

There is distinction between a College and a University. It is now generally admitted that College instruction is one thing and University instruction is another. The chief function of a College is to teach young men between the ages of 18 to 22, who still require the guidance of a professional teacher. Its duty resembles that of a Secondary school. The only distinction in the function between a Secondary school and a College is that in the former the pupil is placed under a strong and despotic control, but the College teaching means a relaxation in the outward form of control while still retaining a sense of responsibility and a personal interest in young men placed under its charge. In the years of higher study at Universities, the relation between the teacher and the taught is accepted on both sides as one of mutual independence, the teachers are only senior colleagues, guiding the independent research of the students. In other words, "College instruction requires definite, but not uniform methods, a certain deference to the authority of the master; while University instruction is much freer, and the scholar is encouraged to inquire rather than to accept; to test and observe rather than to hear and recite; to walk with a friendly guide rather than to obey a Commander."* Thus a College and a University

have to discharge two disparate functions. But in most of the progressive countries of the world, these two disparate functions combine in one organisation under the name of University, whose aim should never be confused. In Bengal, in the University of Calcutta, these two distinct functions have been kept separate, but in the recently-created University of Dacca these two functions have been combined in one institution under the name of University.

But can we set any limit to the boundaries of a University? We think not. The boundaries of a University are co-extensive with knowledge itself. No knowledge can be foreign to the domain of a University.

To express the same thought in the words of Francis Newman: "All knowledge whatever is taken into account in a University, as being the special seat of the large philosophy which embraces and locates truth of every kind and every method of attaining it."* Viscount Haldane holds much the same view. He says: "It is for us to see that we make the Universities, which after all are the sources of power, *strong enough and comprehensive enough in their aim* to meet the new demand that goes to the very roots of the welfare of the State."† The late Sir Asutosh Mookerjee had the same high conception of the dignity and vocation of a University when he urged in his Convocation speech in Lahore that it was a "paramount necessity that in a University worthy of the name, the course of instruction should cover the whole field of human thought and intellectual activity so that she might participate to the fullest extent in the diffusion and advancement of know-

* Vide the article "Universities" in Encyclopaedia Britannica, 11th edition.

* Essays and Lectures, Sadler, p. 68.

† Vide the Report of the Second Congress of the Empire.

ledge and that she might be in a position to satisfy the requirements of all the students who might flock to her gates actuated by various kinds of needs and desires."

Indeed, learning has no territorial limits. There is no such thing as national learning. World learning is the only thing worth considering in a University. Such a high conception of the dignity of a University, even higher than anything that can immediately be realized, is the way to ennoble the Institution itself.* We learn from the "Times" that in recent years the University of Oxford has developed, expanded, and modernized. "In 1921 there is hardly a subject of human knowledge, hardly a single language of articulate and inarticulate men on this earth, which has not its own school, professor, and students." This is equally true of Cambridge, Harvard, Yale and other big Universities of the world. If this is the true ideal of a University, why do we hear talk of specialisation? Why do we hear that each University should confine its attention to some special field of research? This is because if every University will try to do everything, there will be overlapping and waste of energy as well as of money, besides an unhealthy competition. Most of the Universities of the United Kingdom teach Greek and Latin but special provisions for advanced classical studies exist only in Oxford and hence Oxford has specialised in classical studies. Elementary teaching in agriculture has been undertaken by many Universities of Great Britain but special provisions for their study exist only in Cambridge and Reading. Similarly Liverpool has specialised in Tropical Medicine, Leeds in Textiles,

*Vide Francis Newman's Preface to the translation of Huber's 'The English Universities'.

Sheffield in Metallurgy. In a country where there are many Universities and where one branch of knowledge is taken up by one of these Universities for specialisation on a large scale and the very same subject is studied intensively by any other University, there will be overlapping and waste of energy as well as of money. But we must make a distinction between *specialisation* and *generalism* (to use a term coined by Professor Lee of the University of Oxford). All eminent educationists of the world are at one in thinking that some *general* subjects of higher education must be taught in a University even though we wish to apply to it the principle of specialisation. A University cannot wholly confine itself to the study of physical science or wholly to humanism. Students in humanistic subjects will suffer if they are entirely divorced from physical science, and students of physical science will suffer if the whole of their course is devoted to it without an admixture of letters. So every University must teach certain general branches of study but such subjects as Engineering or Metallurgy may not be taken up by every University. There are Universities that have great advantages from their position with regard to specialisation in certain branches of study and those subjects should be undertaken by them for intensive study. For instance, oriental studies may conveniently be taken up by the Indian Universities for specialisation. The Calcutta University is the first teaching University of British India and is of recent growth. Other Indian Universities more or less based upon the Calcutta model have taken up some of those very subjects which have already been taken up by Calcutta. The teaching Universities of India are in the course of formation and so any

specialisation can hardly be claimed in their favour.

We learn from the admirable Annual Convocation speech of Sir Asutosh Mookerjee, the then Vice-Chancellor of the Calcutta University, delivered on the 18th March, 1922, that the Calcutta University authorities took up for post-graduate study and research 21 distinct branches of knowledge, namely, English, Sanskrit, Pali, Arabic, Persian, Indian Vernaculars, Comparative Philology, Mental and Moral Philosophy, History, Political Economy and Political Philosophy, Commerce, Pure Mathematics, Physics, Chemistry, Physiology, Botany, Geology, Zoology, Experimental Psychology and Anthropology. The Calcutta University Commission (1917-1919) examined almost all these divisions and their sub-divisions and did not consider them unnecessary. On the contrary, the Commission recommended that further development was desirable in the following branches of study already existing in the University of Calcutta or its Colleges, and that the provision in some of these subjects was quite inadequate: (1) Comparative Philology, (2) English, (3) Sanskrit, (4) Pali, (5) Arabic, (6) Persian, (7) Tibetan, (8) Chinese, (9) Japanese, (10) Philosophy, (11) Experimental Psychology, (12) Education, (13) Physical Education, (14) History including Islamic History, (15) Jurisprudence, (16) Economics and Commerce, (17) Statistics, (18) Physics, (19) Chemistry, (20) Botany, (21) Zoology, (22) Physiology, (23) Bacteriology, (24) Mining, (25) Engineering—Mechanical and Electrical.

Farther, Sir Michael Sadler and his colleagues append the following list of subjects in which departments of study ought in future to be established as funds permit:—

(1) Indian Vernaculars, (2) Hebrew and Syriac, (3) Greek and Latin, (4) French, German, and other European Languages, (5) Phonetics, (6) Geography, (7) Palaeontology, (8) Astronomy, (9) Entomology, (10) Bio-Chemistry, (11) History of Medicine, (12) Meteorology, (13) Aeronautics, (14) Naval Architecture, (15) Agriculture, (16) Forestry, (17) Sciences of Leather Industries, (18) Colour Chemistry, (19) Metallurgy, (20) Sciences of Textile Industries, (21) Ethnology, (22) Religions, (23) Sociology, (24) Architecture, (25) Indian Graphic Arts, (26) Indian Music, (27) Indian Numismatics.

Thus we see that the Sadler Commission, instead of restricting the present expansion of the post-graduate department, recommends its further development and expansion, as funds allow. I cannot but conclude this article with the following enumeration of the sound principles that are more or less followed by all the Universities of the United States:—

"1. There is a disciplinary stage in education which is the requisite introduction to the higher and freer work of the University.

2. The success of the higher work depends upon the intellectual and moral qualities of the professors. No amount of material prosperity is of value unless the dominant authorities are able to discover, secure and retain as teachers men of rare gifts, resolute will, superior training and an indomitable love of learning.

3. The professors in a University should be free from all pecuniary anxiety, so that their lives may be consecrated to their several callings; pensions should be given them in cases of disability, and, in case of premature death, to their families. In methods of instruction they should have as large an

amount of freedom as may be consistent with due regard for the co-operation of their colleagues and the plans of the foundation.

4. The steady improvement of the libraries and laboratories is essential if the institution is to keep in the front line. The newest books and best apparatus are indispensable, for instruments and books quickly deteriorate and must be superseded.

5. For all these outlays large endowments are required. To a considerable extent reliance must be placed on wealthy and public-spirited citizens. In order to enlist such support, the members of a faculty should manifest their interest in public affairs, and by books, lectures and addresses should inform the public and interest them in the progress of knowledge.

6. Publication is one of the duties of a professor. He owes it not only to his reputation but also to his science, to his colleagues, to the public, to put together and set forth, for the information and criticism of the world, the results of his inquiries, reflections and investigations. Qualified students should also be encouraged under his guidance, to print and publish their dissertations.*—*The Calcutta Review*, Nov. and Dec. 1928.

* *Vide* the article "Universities," in *Encyclopaedia Britannica*, Vol. 27, p. 777.

KALIDASA

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Reviews and Notices.

HOW WE LEARN—THE PSYCHOLOGICAL BASIS OF THE PROJECT METHOD, BY WILLIAM H. KILPATRICK, PH.D., LL.D. ASSOCIATION PRESS, (Y. M. O. A.), CALCUTTA. Price: Paper, Rs. 1; Cloth Rs. 1-8-0.

In the past, Education was centred round methods of teaching. Formal methodology was cultivated to an extent which made it a means of suppressing intellectual interest. Now we have come to realise that methods of learning are more important than methods of teaching. If teaching is to foster thinking, learning process must correspond with teaching process. Hereafter we shall talk less of the ways of teaching and more of the ways of learning.

It is this point of view that the book presents to the reader. It is divided into three parts. In the first part we have an interesting account of the learning process. The second part deals with life and learning. The third part which is the most important part of the book deals with learning through purposes. The main point that Mr. Kilpatrick emphasises here is that learning is always a purposeful activity, an activity that affects conduct. If children follow their purposes in school, they will be building up efficient and responsible characters. Incidentally Mr. Kilpatrick points out that the only motive for learning for the Indian boy is degree-winning. He does not put himself whole-heartedly into school work for its own sake. When the course is over he does not look at his books again. But real education lasts as long as life lasts.

The Project method, says Mr. Kilpatrick, seeks to remedy this evil in the traditional kind of teaching. Through this method of teaching a nation's life will become fuller and richer.

Is India ready to receive the Project method? There are many conditions affecting each school. Perhaps India is not ready to start to run a school on the Project basis.

We should really think that the book is an excellent treatise on the psychology of learning whose laws are of far-reaching value to the Indian teacher.

SCHOOL LIBRARIES: PRACTICAL HINTS ON MANAGEMENT, BY E. S. FEGAN. (HEFFER AND SONS, LTD., CAMBRIDGE, 1928). Pp. 105. Price 3s. 6d.

This book in which the even pages are left blank for the writing down of suggestions and remarks lays down rules, suggestions and hints for forming a library, equipping it with furniture and tools, arranging books in a systematic manner and shaping the catalogue, which is different from the classification. Classification is the arranging of books according to some plan; cataloguing is the writing of a description of a book. Details of rooming and spacing, the provision of mobile shelves, the keeping of an accessions book, the maintenance of cataloguing cards, of a borrowers' register, of a classification scheme and cataloguing rules, of shelf-guides, etc., are all noted by the author, as being of immense help to the librarian, even to small school librarians. Caution is given as to the getting of books without duplication and the danger of dumping; and the librarian is specially asked to tabulate and stick firmly to the processes through which a book finds its way into the shelves. The collating of new books should be carefully done; the labelling on the backs of books should be very careful; while great stress should be laid on the maintenance of the class-list—a list in which all the books are arranged in the order in which they stand on the shelves in the library—which is to be deemed as the sheet-anchor of the librarian. The classification of books is best done on the plan of Melvill Dewey or on Perkins' Rational Scheme, both of which are explained in a chapter along with the Sheltenham Scheme which is based on the second. The cataloguing involves first the deciding as to the format and then of the form. The classified

catalogue is very difficult to make up. Directions are given as to proper buildings and repairs. Lastly a few miscellaneous instructions as to the preparation of the annual report of the library, the collection of pictures, etc., and the getting of voluntary help from students are given. The book is bound to be very useful to every librarian, and even private owners of collections.

ST. AUGUSTINE, BY MISS E. McDOUGALL, M.A. D.LITT.—THE BHAKTAS OF THE WORLD SERIES. (CHRISTIAN LITERATURE SOCIETY FOR INDIA, 1928). Pp. 114. Price 8 As.

This study, by an erudite Lady Principal, of a Christian Saint, who is possibly "the greatest personality in the Christian Church between St. Paul and Martin Luther" has been written with a view to bring out his personal religion which he evolved in days of turmoil and change not very much dissimilar from our own. He is here stressed not so much as a theologian and master-builder of doctrine, as the "explorer of the human soul, and the greatest expert among the Christian Fathers in the personal religious life of the individual." He was converted to the Christian faith at Milan under the eagle of St. Ambrose in his thirty-third year; and this was as a new birth to him; and he has given to the world in his immortal "Confessions" the view that he lived before his baptism, with perhaps the view that the book might serve as a sort of corrective to the high esteem in which he was held by the whole Christian Church. He endured the fall of Rome before the barbarians; and his greatest book, the *City of God* was written in order to strengthen the wavering faith of those who believed that the fall of Rome meant the defeat of Christianity. A true *bhakta* of Christ after his conversion, and living on in his obscure African diocese of Hippo, only to die in the course of the siege of his city by the Vandals, he was simple in his ways, believing and working on to the ultimate idea of a celestial fatherland which should outweigh every other loyalty. The personal religion—*bhakti*—of such a saint is brought out very forcibly and beautifully in this

charming book, so directly appealing to the mind and the emotion of the reader. We trust that the other books in this series will come up to the high standard set up by this, both in the appeal to the truly religious soul of all men and in the charm and flow of style in which the appeal is made.

THE INDIAN CONSTITUTION, BY M. A. BUCH, PROFESSOR OF PHILOSOPHY, BARODA COLLEGE, BARODA. Price Rs. 2.

In his concise and analytical Constitutional History of India, Mr. M. A. Buch has attempted successfully to trace the evolution of the salient features of the Indian constitution. The Indian constitution is an organic growth, which developed gradually under the pressure of various forces and circumstances. The Secretary of State in Council represents in fact the supreme element of expert control at the higher end, co-ordinating the Indian and Imperial policies (page 37). The author gives a brief but clear exposition of the relation between the Secretary of State and the India Government (pages 39-47) and traces the growth of the provincial constitutions from the historic point of view, in an equally simple and clear manner. In his opinion the ideal of a united Indian nationality could be realized only when there is a strong Central Government, whether its form be Federal or Unitary. His criticisms of dyarchy even as a transitional stage of government are reasonable and fair, so also his chapters on financial control (pages 119-123), communal electorates (page 139), education (pages 184-192). A brief and succinct account of the nature attempted in this book, of the Indian constitution from the times of the East India Company to the days of the Simon Commission, should be a welcome guide to our University students preparing for the B.A. Degree Examination as also to laymen who want to know the gist of things without going much into technical intricacies of constitutional law and practice.

FEDERAL FINANCE IN INDIA, BY K. T. SHAH, PROF. OF ECONOMICS, UNIVERSITY OF BOMBAY. (D. B. TARAPORKEVALA SONS & Co., BOMBAY). Price Rs. 6.

This is a publication of the author's lectures delivered for the Banaili Readership of the Patna University for 1928-29. The author traces in the course of his six lectures not only the history of Indian finance from the federal standpoint, but traverses much of constitutional ground, reviewing the constitutional position affecting finance in the leading federations of the world, including the United States of America, Canada, Union of South Africa, Post-war Germany, Australia, etc. He also goes into the history of the evolution of the Indian constitution which as he well expresses "seems to have been a haphazard development, without any specific plan or purpose; and in which therefore, it is as easy to discern the existence of a federal tendency as to deny it altogether," and then sketches the history of financial decentralisation in British India beginning with the Mayo Scheme of provincial finance of 1870 and bringing it down to the Meston Settlement of 1921 which he subjects to a critical scrutiny, pointing out how "there was nothing in it to mark it as a scientific scheme of Federal Finance in practice." Speaking of the provincial contributions, he points out how they were obviously unequal. "While Madras, the U. P. and the Punjab contributed between them $\frac{2}{3}$ of the total estimated imperial deficit, Bombay contributed only $6\frac{1}{2}\%$ and Bengal $5\frac{1}{2}\%$. But Bombay had a high scale of expenditure, which made the increase in its resources negligible. Bengal had relatively a low scale of spending; but then its revenues were inelastic. Moreover both Bombay and Bengal contributed indirectly to the imperial revenues very much more than the other provinces in the shape of customs duties and still more in the shape of the income-taxes." These have now become familiar arguments and provincial contributions have happily, by 1927-28, been completely remitted. But as the Professor argues, "the situation

however, is not even now all that it well might be expected to be from the standpoint of scientific federal financing."

On the Revenue side, the Professor is in favour of assigning all the proceeds of indirect taxation to the Central Federal Government and those of the ordinary existing direct taxation to the constituent States and Provinces. This would mean that the customs, salt, as well as excise revenue would go entirely to the Central Government. *Per contra* taxes on income would revert to the Provinces; and land revenue, stamps, registration and forests income would remain as before provincial. As regards the main provincial source, i.e., land revenue, the Professor is in favour of an entire recasting of the system. He says "there are vast areas in the country—usually with Ryotwari Settlements, made directly with the poorest peasantry in the world individually, and maintained and administered with the entire might of one of the most powerful governments of our days—in which the incidence of that tax offends as much against the canons of public economy, as against those of social justice." If such a recasting of the land revenue system is undertaken, there is considerable danger of the Ryotwari provinces losing a substantial portion of their present income. But they will find adequate compensation, he says, when income-tax is made over to the Provinces, and the land revenue and the income-tax are assimilated. If for some years, there is a deficit in some of the Provinces, it can be made up either by subsidies from the Federal Government or by imposing some additional taxation by way of excise, e.g., on tobacco grown in the province.

The author has also valuable suggestions to make on the side of expenditure, and most of these are already familiar to us from the Professor's other monumental work: "Sixty Years of Indian Finance."

The author's most original contribution in this book however appears to be his clear and forcible

exposition of the case for the Indian States joining in the new Federated India. Indeed this question appears to have been uppermost in the author's mind from the beginning to the end of the series of lectures. For, as he points out in his second lecture, "Whatever the future constitution of India, the harmonious and beneficent working of its machinery demands that a *modus vivendi* be devised, which will permit of as large a degree of assimilation of the States with the British Provinces as is compatible with the tradition and convention in that regard. Such a happy or at least peaceful consummation is possible only in a federal organisation." The learned Professor goes here into the question of Treaty rights and points out how "there have been interventions of the supreme authority to set right even the purely domestic abuses of particular States; that despite the actual words of the Treaties, etc., Government have admitted exceptions to the general convention of non-intervention on either side of the line; this must suffice for the argument that the relations of the Indian States to the rest of the country are so close, so numerous, so constant and indispensable that anything that promotes a closer co-operation and a more effective concert of action among them, cannot but be welcomed by all parties concerned." Here he warns us not to make the mistake of confusing the States with their Ruling Chiefs and on the other side agrees with Sir Sivaswami Iyer that "it is not correct to say that the treaties were entered into with the Crown irrespective of the sovereignty of British India." Then he goes on to point out to what extent the States have suffered in the past by being mere Feudatory States dependent on the Government of India and what they would gain by becoming equal partners in a Federated India. The author is easily at his best here, when he points out how badly hit they have been by the Government of India's opium, salt, customs, excise and currency policies in the past and to what extent their financial and economic position could improve by

their joining lot with British India in a Federated Constitution.

On the whole the book is a welcome and opportune publication coming as it does at a time when Commissions and Committees are enquiring into the nature of the future Indian Constitution. The author goes into the root evils of Indian constitutional growth and of the evolution of Indian finance, and suggests radical remedies, though as he himself admits in the Preface "his treatment of the subject had necessarily to be general, avoiding all particular discussion of the finances, whether of particular States or Provinces." Even a casual reader of the book would come away with the impression that only a radical recasting of our financial system on scientific lines of Federalism would meet the demands of the situation and that no tinkering or small changes would do.

SENSE IN SEX AND OTHER STORIES OF INDIAN WOMEN, BY A. S. PANCHAPAKESA AYYAR, M.A., I. C. S. (D. B. TARAPOREVALA SONS & CO., BOMBAY). Pp. 288. Price Rs. 4.

We have read this book from cover to cover and enjoyed it fully. The stories give an intimate picture of South Indian life, its prominent social features and marriage customs. But we do not like the title of the story: "Sense in Sex," which is used for the entire book. "Sex" is not a very elegant word, even in reference to what it expresses here. An erring husband falling into a courtesan's clutches is recovered by the faithful wife in the first story. "Theft Made Good" tells of a child stolen to satisfy the cravings of a prosperous couple to have a child of their own. We have heard independently of such thefts happening in reality. "Love Conquers Hate" tells of a wise man who bears with the wicked acts of his frivolous sister and niece to murder him, leading them later on to learn better.

"In Search of a Job" is a humorous story detailing the hardships of unemployment concluding

ing with the triumph of "Back to the Village and the Land." "His Ancestral Curse" is not of a piece with the other stories in the book, by passing distinctly into the romantic. But it is a powerful story well told. "Recovered Bliss" tells of marital bliss temporarily marred by an Iachimo. "The Right to Happiness" like some other stories in the book shows the birth of a newer and braver outlook on life, in the minds of even ordinary women doomed to trials and difficulties which are well nigh overwhelming. Ammu, the girl-widow, marries again in her own village Yegnam, the doctor, whom neither his parents nor the society could afford to outcaste. "Fate Is Mostly What We Make It" is a very good story giving some very characteristic pictures of Hindu life. Viswanath is the drone who lives on his wife's property and wants to marry her sister so that he might enjoy the property of his wife's father without diminution. "Slaves of Custom" has very little of the story in it but gains in its realism. "The Ways of Providence" is another picture of sordid poverty and misery oppressing a woman with an ever-increasing progeny. The "Heart of a Woman" tells of the tragedy that lurks in marriage for woman. Altogether we are impressed with Mr. Ayyar's ability to conceive and tell stories, showing much humour and pathos and so real to Hindu social existence. We offer him our hearty congratulations.

AN INTRODUCTION TO REAL ALGEBRA, BY K. SRI RAMULU, M.A., AND G. RAMACHANDRAN, M.A., L.T. (MACMILLAN & CO.) Price Rs. 2.

This book is a welcome addition to the existing books on Intermediate Algebra since it is written by Indians for Indian students and since "foundations for the study of that logical system called 'Mathematics' are sought to be laid" in it. The book is introduced with a high sounding preface, but the execution is not as satisfactory as one would be led to expect by such a preface, though the book is not in any way inferior to any of the books now in the field. One distinguishing feature

of the book is the insistence on logical analysis and an attempt has been made to provide a natural and easy path to the logic of Mathematics, though the authors cannot be said to have succeeded well in the latter attempt. For instance, in the definition of the addition of natural numbers, the authors say 'addition is to the natural numbers what fusion is to the groups' and in speaking of the fusion of groups, they have not said whether the groups have or do not have any common elements, and in the former case, the definition of addition will be defective. Again on page 17, the authors say "we brought out the two-fold character of a number, viz., its character as the mere name of a class and its character as a cardinal, helpful in counting the number of objects in a given group." This is certainly misleading inasmuch as the students cannot understand from such a statement what exactly is meant by 'number.'

Nextly, on page 24, we find the following:—

$$3 \times (-4) = (-4) + (-4) + (-4) = -4 - 4 - 4 = -12 \text{ of the extended scale.}$$

Here again there is confusion between the — sign as forming part of a number and — as a sign of subtraction.

Further on page 48, where the authors try to fix the place of $\sqrt{2}$ in the ordered system of rationals, this is what they write: "We cannot, of course, by any finite process succeed in eliminating the error altogether and finally fixing the place of $\sqrt{2}$ in the ordered system of rationals. But it is possible to visualise intellectually that when the error becomes completely eliminated, the place of $\sqrt{2}$ becomes fixed." How the error can 'become completely eliminated,' we cannot understand however much we may try to 'visualise intellectually.'

Again on page 101, when the authors try to define the ratio between two incommensurable quantities between A and B, there is much obscurity as to what exactly is meant. This is what they say: "The ratio between two incommensurable magnitudes, say A to B, is the ratio of X or Y to B where $X < A < Y$, X and Y being two magnitudes commensurable with B such that $Y - X$ can be made as small as we please." Evidently when they say that $Y - X$ can be made as small as we please, they mean Y and X to be variables, but at

no stage of their variation can the ratio of X or Y to B be defined as the ratio of A to B. What should have been given is that the limit of the ratio of X or Y to B is the ratio of A to B.

We have cited these instances just to show that there are some defects in the development of the subject and therefore the book in its execution is not as satisfactory as the authors claim in the preface. But we are glad that they have made an attempt, and that a fairly successful one, to present the subject in a logical manner. This is very necessary in these days when the students as well as the teachers are anxious to pass on to questions and examples without clearly grasping the fundamentals of the subject.

The printing and the get-up of the book is very satisfactory and we gladly recommend the book for use as a text-book in the Intermediate classes.

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The Educational Review.

The Association for the Advancement of Hyderabad has made some interesting suggestions with regard to mass education in the State which we hope will receive the early attention of the authorities concerned. The progress of primary education has been so slow and the percentage of literacy so little that a great effort has to be made if the Nizam's Dominions have to take their place among some of the more advanced States in the country. We are glad to find that the Association recommends compulsion, in the absence of which, we are sure no progress is possible in a place like Hyderabad. Public opinion is so backward in the Dominions that it is not likely that for decades to come there will be any spontaneous demand for education on the part of the people. It is interesting to note that the Association favours moral education and not religious education, for it is contended that religious education should be given at home. In the interests of communal harmony, it is suggested that education should be made as secular as possible. A recommendation is made to the effect that vernaculars should be the media of instruction in the lower stages, the only conclusion possible, especially in a State like Hyderabad where instruction is through the vernacular at the Osmania University, though there are of course difficulties in adopting this reform even at the school stage, in view of the multiplicity of languages in the State. In the

first place, there is Urdu which is the Official and State language, but which is understood by the small section of Mohamedans which amounts to less than ten per cent. Telugu, Marathi and Canarese constitute the languages spoken by the people and though there are more or less definite linguistic areas, the presence of more than one language in a State causes considerable difficulty. The imparting of a rural bias to elementary education is another plank in the reforms advocated. In view of the fact that local governments have not yet developed very much in the State, the Association recommends that there should be a strong centralised authority for controlling education and the scheme of compulsion should be applied under its authority. We are sorry to find that it is not proposed to apply the compulsion for girls also. In fact, it would be more useful to apply compulsion first to girls rather than to boys, as the education of mothers is the surest way of spreading elementary education in the next generation.

In spite of the teaching of elementary science in schools (though it is possible to effect considerable improvement in the matter), it is not sufficiently recognised that science is an essential element of culture. Speaking at the recent Ramsay Chemical Dinner in England, Dr. Levinstein had some valuable remarks to make on the subject:

Dr. Levinstein said he would like to see a knowledge of physics and chemistry and

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other natural sciences considered to be as much a sign of culture as a knowledge of the classics. Properly taught there was as much culture to be derived from science as from the humanities, and more useful knowledge. The date when Ramsay discovered helium gas imprisoned in a stone called cleveite, now old, but a young stone when it first caught its helium and kept it, was of greater interest to a cultured mind, and of far greater importance, than the date of the Battle of Lutzen.

If some old bone revealed to the anthropologist the story of our evolution, was it not worth the knowing? If some old stone released helium after aeons we could not measure and this helium turned out to be a brick left over by the Master Builder of the Universe and Ramsay found it, was that not enough to immortalize the name of Ramsay? Was that a cultural achievement equal to that of suggesting a brilliant emendation in a Virgilian text? And yet we called the one a cultured scholar, a pursuer of the humanities, the other merely a man of science. An increasing number of our youth should be taught science, particularly chemical science, not to equip them for any profession but, as they learned classics, to train their minds, to teach them to think, and, in short, to educate them.

It would not be a bad thing at all to insist on an elementary knowledge of science even in colleges, so that every person who has passed out of the portals of a University may be familiar with such knowledge of natural phenomena and the world around us, as is necessary for every gentleman professing to be cultured.

We must protest against the practice on the part of some of the Universities in India of advertising ordinary educational appointments in England. There may be some

excuse in the case of a few special technical appointments requiring qualifications not ordinarily possessed in India, but it passes one's understanding why valuable Indian money should be wasted in advertising appointments in England for which any number of highly qualified men are available in this country. In a recent issue of the *Educational Supplement* of the *London Times* we find two long advertisements by the Dacca University, one for a temporary Readership in English from November 1929 to 30th June 1931 on a salary of Rs. 400-50-600, and another for a Readership in Modern History on a similar salary. Does the learned Vice-Chancellor of the Dacca University think he cannot discover suitable candidates for these two appointments throughout the length and breadth of India, while there are distinguished Indian scholars in History and English actually presiding over the departments in many other Universities? It is surprising that even for temporary appointments it should be necessary to go to England. The advertisement promises steamer fare all the way from England to Dacca! This is a waste of the poor tax-payer's money against which all patriotic people should protest. While the importation of Europeans for appointments of this kind in our Universities is not justified for any reason, the advertisement of these small appointments is particularly undesirable. It is easy to imagine what sort of Englishman is likely to be attracted by a University appointment on Rs. 400-50-600. Judged from every point of view, such

action seems undesirable and we hope that some vigilant member of the Court of the Dacca University will take the necessary steps in the matter.

The Inter-University Board, India, has shown considerable activity in recent months in the preparation of valuable literature bearing on University work. *The Hand-book of Indian Universities* has now been made an annual publication and the new edition has been just published. Besides details about all the seventeen Universities in India, it contains valuable information on other institutions of a University nature like the Indian Institute of Science in Bangalore, the Bose Institute, the Women's University in Poona, etc. It will be remembered that the Inter-University Board published some time back a small pamphlet on *Facilities for Oriental Research in Indian Universities*. A pamphlet on the same lines containing information on *Facilities for Scientific Research* has been published and should prove very useful to all interested in the subject in India. A further publication is the report on the Inter-University Board for 1928-1929 containing not merely an account of the work of the Board during the year, but giving a report of the proceedings of the last annual meeting held at Patna. When the Second Conference of Indian Universities meets at Delhi some time in the autumn of this year, there will thus be plenty of matter to judge the useful work of the Board inaugurated in Simla in 1924.

The difficulty in obtaining women teachers in India even for girls' schools happily frees the country from a problem which is now agitating England. At Educational Conferences held there within the last few weeks, men have objected to women teachers being placed in charge of the education of boys. It is contended that women can never be satisfactory teachers for boys, as they are not likely to develop the masculine qualities necessary for the healthy development of a boy. It is difficult to say what amount of truth there is in the argument which is thus put forward. That there are real differences of emotion and intellectual temperament between man and man will not of course be denied, though it must be confessed at the same time that they are largely exaggerated. It is unfortunate there should be this kind of sex-antagonism, the only excuse for which is however the economic needs of the people, the men finding it hard to secure employment, being replaced in many places by women. The fact that women teachers can be secured on lower wages is another great temptation for gradually reducing the number of men teachers. It will be interesting to watch the developments in the struggle in the coming months.

The programme for the ensuing session of the World-Federation of Educational Associations which is to meet at Geneva at the end of July and at the

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The programme for the ensuing session of the World-Federation of Educational Associations which is to meet at Geneva at the end of July and at the

beginning of August promises to be an interesting one and it is gratifying to note that India will be represented by nearly twenty delegates on the occasion. One of the outstanding features of the Convention will be the consideration of the reports of the several Committees of the Herman-Jordan Plan of Education for Understanding, Goodwill and Friendship. These Committees will deal with the following subjects:

COMMITTEE NO. 1.

Education for Peace.

A Committee for the formation of a General World Committee on Education for Peace to function in connection with the several educational groups in the different nations and to co-operate with many already established organizations for peace in all parts of the world.

NOTE—This general organization was made at Toronto meeting. A continuation of its work is in order.

COMMITTEE NO. 2.

Teaching of History and Patriotism.

A Committee to investigate the present teaching of history the world over, reporting also on text-books used, their virtues and their delinquencies from the standpoint of international amity and stressing the need that history, whether elementary or advanced, should be just and true so far as it goes. In this connection should be considered the teaching of intelligent patriotism with an attempt to define its truth and expressing its value, its limitations and its perversions.

COMMITTEE NO. 3;

International Athletic Sports and International Relations of Youth.

A Committee to consider special plans for promoting mutual international understanding on the part of students of various ages, including the possibilities of better

relations through the international use of athletic sports, especially those games which involve co-operative action or team play as distinguished from individual competition; also to consider various other relations which may be encouraged, such as school correspondence and the exchange of students and teachers.

COMMITTEE NO. 4.

Military Education and Preparedness.

A Committee to consider this subject in regard to its educational, economic and social aspects. Such a Committee should furthermore consider without prejudice the question of military training in school and college, its possible advantages to the individual and the nation, with the alleged accompanying drawbacks and dangers. This group should also deliberate on standing incentives to war and the possibility of their abatement through education.

COMMITTEE NO. 5.

General Machinery for International Co-operation.

A Committee to present ways and means for introducing the spirit of international co-operation and good-will into the educational material and methods of our schools, to study the several attempts that have been made to settle international difficulties by peaceful means and to make a comprehensive study of international machinery set up for this purpose.

We must protest against the recent decision of the Government of Madras to exclude third class

M.A.'s and Honours men altogether from consideration for appointments in the collegiate branch of the Educational Department. Examination-ridden as this country is, it is not surprising that people should make such a fetish of the divisions in which people pass in examinations. As an educational journal, we

shall of course be not guilty of minimising the value of distinction in examinations. In fact, we are even prepared to go to the length of declaring that other circumstances being equal, a person who has passed in the better division should always be preferred to one who has passed in a lower division. But to declare that one who has passed in the third division should not be eligible for appointment at all in the collegiate line is an injustice against which we are bound to protest. There may be circumstances in which a third division may not necessarily imply any want of ability or even application and obviously there are some qualifications in the intellectual world apart from the mere division in which a man passes in his examination. The want of a higher class may be compensated for by other circumstances and it seems foolish to hang so much on to the mere class of an examination result. Another complication is the fact that different Universities in the country have got different standards with regard to divisions in examinations. The standard which the Madras University has kept up in this matter is undoubtedly superior to that of many other Universities in India and the result of such an order as the recent one will only be the exclusion of the *alumni* of the Madras University in favour of the inferior products of other Universities even in Southern India. We understand that an agitation has already been started regarding the matter and we trust that it will result in the abolition of this order at an early date.

-XXXV—35

It is some time since the Government of India adopted a resolution moved in the Legislative Assembly—
Compulsory Physical Culture.—a resolution recommending compulsory physical training and games and drill for Indian students between the ages of 12 and 20 and the encouragement of the use of miniature rifle ranges. This was the result of an amendment moved by Col. Crawford and it is significant that the amended resolution was accepted not merely by the Government, but also by all sections of the House. Nothing however has been heard of the action which the Government of India proposes to take on the resolution. It is hoped that it will not go the usual way of resolutions in the Assembly and some decided action will follow at an early date. It will of course be argued that the carrying out of this reform will prepare the younger generation for the defence of the country without which there can be no independence of even the Dominion Status variety. But even a more important consideration in the world of education is the great value of games and physical exercises in the development of character and in keeping young people out of mischief and morbid tendencies of various kinds. To secure enough of physical exercise to the young man is to ensure his good character and the development of a good intellectual capacity, though sometimes there have been unfortunate examples to the contrary.

The field of Tamil Culture is still one of the unexplored regions of Indian History. Ancient Tamil Culture.

We are glad Mr. P. T. Srinivasa Iyengar, the new Reader of Indian History, has been devoting himself to the subject and has written a series of articles in the *New Era* drawing attention to some of the intellectual and emotional qualities of the ancient Tamils. The articles are interspersed with a number of valuable translations of Tamil folk-songs and extracts from early Tamil literature. There is a surprising amount of poetic feeling as well as beauty of expression in several of the lyrics quoted by the writer. Here is one:

"Let us sing, my playmate, about our hearts' desires. Let us pull with our fingers the millet-grains from the stalk which is bent, like the head of a modest girl whose eyes are handsome and speech is pleasant, let us pour the grains into the mortar made from the trunk of a sandal-tree which has blossomed, and let us pound it with a pestle made of pearl-bearing ivory. While the pestle is being raised (alternately) let us sing about our hearts' desires and praise the fertile hill where resides the god who causes the sickness (of love) for which there is no antidote."

Here is a longer but not less beautiful one:

"On the green expanse of the broad thick leaf of the *Caladium nymphaeifolium* which has tubular stalks, lives the she-otter with her young. The he-otter rose to procure timely food to relieve the distress of her hunger; and caught the Valai-fish (*Trichiurus lepturus*). (The otter and the fish) rolled together in their fight and the water of the tank became muddy. The women who had drunk the clear toddy-liquor (to let the water become clear), placed their delicately made and beautiful pots (on the bank and while waiting) sang about the infidelity of their disloyal husbands and danced the Kuravai dance in the shade of the Kanji tree where flower-clusters had fallen. They say that the bejewelled women ('house-hetairæ') who came riding in the chariot of the lord of this large tank of sweet water, sneer at my beauty. As the life of the elephant-driver lasts only so long as the murderous elephant with boiling anger spares him, so they (the 'house-hetairæ') and their followers can take part in the festival when the Tunangai is danced to the beating of drums, only so long as I do not go there. When I go there I will (attract him to me and thus) make them follow me, just as the nerunji flower keeps turning to the sun as he shines in the sky. If I do not, may the beautiful bangles which sit tight round my forearm break to pieces, as did the army of the Aryas in the forest outside Vallam where the Cholas who had bucklers of hides fought them with their bows!"

We await the publication of these articles in book-form.

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The value of Child Study is first twofold, from the point of view of theoretical psychology, and second of education. Education along with psychology has much to learn from the science of biology which suggests to both of these sciences the unit for study, viz., a reaction which is a response to a stimulus. The mental life ought to be viewed as is the physical from this point of view. Further, biological science is showing the usefulness both as to method and content of the observation of development. The study of child-nature is in accord with the genetic method which characterises all the biological sciences. Educationally we have more to do with children than with adults in our schools and so from the practical point of view also the more that we can learn about the natures of educands the better for our work. Miss Gordon's book is thus a real contribution to our literature, for it considers these questions with special reference to conditions in South India.

One of the most important of modern developments in this science is that made through the observation of individual differences. Although education is a social process and children are social in nature, yet we cannot deal with them too much in groups without doing great injustice to matters in which they are unlike. Studies made in Europe and America have their value for Indian teachers, but observations made in India, as Miss Gordon's have been, are of great value in enabling us to ascertain the similarities and differences with children of other countries, and the differences among groups and individuals here. Miss Gordon has not only given the result of her own observations but—what is even more important—she has shown teachers and others how they may observe for themselves.

The book surveys the more important problems connected with the study of child-nature. It deals with the stage of child development, with the processes of sense-perception, with play, hand-work, and fatigue, with exceptional children, both sub-normal and supra-normal, with measurements of intelligence, and with the application of the Kindergarten system to the Indian system. It is one of the books which the Academic Council on the recommendation of the Board of Studies in Teaching has declared as suitable for candidates for the L. T. degree. We hope that it may have a wide circulation as its influence is sure to be for good.

Education (Allahabad), March 1925.

The distinguished author of the book under review is one of the few enthusiasts in India who have taken to a systematic study of child-nature. The book embodies the results of close study by the author, not merely of the existing literature on the subject, but of the actual, mental and physical growths of children, as witnessed by her in several schools in Britain and India where she has had the opportunity to work. Within a brief space of 200 pages, the author has contrived in her plain, matter of fact, and at the same time, engaging style, to elucidate the various topics connected with child life such as the sense perception, play, the service of Hand in Mental Development, fatigue, exceptional children, measurement of intelligence and the Kindergarten system; touching the various theories on these topics and supplementing them by her own views based on personal study and investigation. We would especially commend to our readers the beautiful and inspiring chapter on the Kindergarten system in which without going into technical detail, the author has surveyed the basic principles of the system and pleaded in accordance with these principles for the indianisation of Indian education. We are sure that this

little book will prove an excellent handbook for teachers as well as parents and others interested in the subject and kindle in them a deeper interest therein. It has been already recommended by the Academic Council of the Madras University as a suitable text-book for the students appearing for the L. T. Examination and we hope that other Universities will soon follow suit. We congratulate both the author and the publishers on this valuable publication and recommend every teacher to secure a copy thereof.

The Madras Christian College Magazine, January 1925.

The study of child-nature is exceedingly important for both of the sciences of Psychology and Education. Its importance for Psychology is from the genetic point of view. In the child one is able to observe in simpler forms many of the processes at work which in adult experience become so complex as to make them difficult of analysis. Its importance for Education is too obvious to need extended notice, and yet there are some who are so short-sighted as to neglect it. Here in South India there are a great number of schools in charge of teachers who do not know the elementary facts about child-nature. But with the progress of education the time will surely come when it will be considered as dangerous to employ a teacher who is ignorant of child-nature as it is to employ a man for a physician who knows nothing of anatomy and physiology. Such a book as that which Miss Gordon has written will serve a useful purpose in hastening that day by putting teachers in possession of a primer which contains the fundamentals of the subject in a readable style. It is the type of book which we would like to see translated into our South Indian vernaculars, because it not only includes the principles of the science, but states them with special reference to the needs of Indian teachers.

A personality is the outcome of forces which are both hereditary and environmental so that child study must take account of both sets of factors. Much more is to be gained by teachers through the study of children for themselves than the mere perusal of books on the subject, however authoritative they may be. The trouble with so many students of other things as well as of child-nature is the evident desire to be spoon-fed. They desire to get their information at second-hand rather than take the trouble to study for themselves. In many instances teachers have not the technique necessary to observe intelligently. Very valuable, then, is Miss Gordon's chapter on 'How to Study a Child,' particularly for those who are beginners in child study, and it is a matter of vital concern as much for the parent as for the teacher.

Certain subjects have been especially studied recently by educationists, and Miss Gordon gives useful accounts of the results of these studies. One chapter is devoted to the place of play in child life and in the educative process. It is a wholesome corrective for the old fashioned idea that play is a superfluity. The author brings out some of the most useful services which are rendered by play, for play has direct educative value, assisting in the training of the judging and other mental processes, as well as in the spirit of fair-play and other moral qualities. The play-ground affords a splendid type of voluntary democratic organisation. Another chapter is devoted to 'The Services of the Hand in Mental Development.' Sometimes the school in emphasising the development of the mental processes has tended to neglect the fact that intelligence is sometimes motor, and that these two factors, the mental and motor, are closely related to one another. The questions of 'Exceptional Children' and 'The Measurement of Intelligence' are closely related, since it is through the latter that we get our most accurate knowledge of the former. A final chapter deals with a question on which Miss Gordon is surely competent to speak, 'The Kindergarten System and Its Application to Indian Children.' Altogether she has succeeded in writing a most useful little book, and we hope that it may have a good circulation among teachers and parents who cannot but profit by what she has written on the nature of children and how they should be educated.

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