

₹ 200

ISSN - 2249-555X

Volume : 1

Issue : 7

April 2012



Journal for All Subjects

www.ijar.in

Listed in International ISSN Directory, Paris.



ISSN - 2249-555X

Indian Journal of Applied Research

Journal for All Subjects

Editor-In-Chief

Dr A Kumar

Director, College Development Council (CDC)
Director, Internal Quality Assurance Cell (IQAC)
Professor in Management,
Department of Business Administration, Faculty of Management,
Bhavnagar University,

Editorial Advisory Board

Dr. S. N. Pathan
Maharashtra

Dr. SM. Ramasamy
Gandhigram

Dr. M. M. Goel
Kurukshetra

Dr. S. Ramesh
Tamil Nadu

Dr Ramesh Kumar Miryala
Nalgonda.

Dr. B. Rajasekaran
Tirunelveli

Dr. A. R. Saravankumar
Tamilnadu

Dr. Roy M. Thomas
Cochin

Dr. G. Selvakumar
Salem

Dr. Apurba Ratan Ghosh
Burdwan

Dr. Shrawan K Sharma
Uttarakhand

Dr. Sudhanshu Joshi
Uttarakhand

Prof. (Dr.) B Anandampilai
Pudhukottai

Advertisement Details

Position	B/W (Single Color)	Fore Color
Full Inside Cover	₹ 6000	₹ 12500
Full Page (Inside)	₹ 5000	-

Subscription Details

Period	Rate	Discount	Amount Payable
One Year (12 Issues)	₹ 2400	Nil	₹ 2400
Two Year (24 issues)	₹ 4800	₹ 200	₹ 4600
Three Year (36 issues)	₹ 7200	₹ 300	₹ 6900
Five Year (60 issues)	₹ 12000	₹ 600	₹ 11400

You can download the Advertisement / Subscription Form from website www.ijar.in. You will require to print the form. Please fill the form completely and send it to the **Editor, INDIAN JOURNAL OF APPLIED RESEARCH** along with the payment in the form of Demand Draft/Cheque at Par drawn in favour of **INDIAN JOURNAL OF APPLIED RESEARCH** payable at Ahmedabad.

1. Thoughts, language vision and example in published research paper are entirely of author of research paper. It is not necessary that both editor and editorial board are satisfied by the research paper. The responsibility of the matter of research paper/article is entirely of author.
2. Editing of the Indian Journal of Applied Research is processed without any remittance. The selection and publication is done after recommendations of at least two subject expert referees.
3. In any condition if any National/International University denies accepting the research paper published in IJAR, then it is not the responsibility of Editor, Publisher and Management.
4. Only the first author is entitled to receive the copies of all co-authors.
5. Before re-use of published research paper in any manner, it is compulsory to take written permission from the Editor-IJAR, unless it will be assumed as disobedience of copyright rules.
5. All the legal undertaking related to Indian Journal of Applied Research is subject to Ahmedabad Jurisdiction.
7. The research journal will be sent by normal post. If the journal is not received by the author of research papers then it will not be the responsibility of the Editor and publisher. The amount for registered post should be borne by author of the research paper in case of second copy of the journal.

Editor,

Indian Journal Of Applied Research

8-A, Banans, Opp. SLU Girls College, New Congress Bhavan, Paldi,
Ahmedabad-380006, Gujarat, INDIA

Contact.: +91-9824097643 E-mail : editor@ijar.in

INDEX

Sr. No.	Title	Author	Subject	Page No.
1	Current Issues In Indian Capital Market	Bhavin S. Shah	Accountancy	1-3
2	Accounting Standard (AS) 30 Accounting for Financial Instruments	Kalola Rimaben A, Chauhan Lalit R.	Accountancy	4-6
3	A Study on Lithology and Petrography of the Tipam Sandstones Exposed along the Tipong Pani River Section of Upper Assam Basin	Dr. Pradip Borgohain	Applied Geology	7-11
4	Study of Fluvial Geomorphic Features of the Lower Subansiri Basin, North-East India using Remote Sensing and GIS.	Dr. Uttam Goswami	Applied Geology	12-14
5	Sheared volcanics in the north of Pugging, East Siang District, Arunachal Pradesh	T. K. Goswami, P. Bhattacharyya, D. Bezbaruah	Applied Geology	15-18
6	Heavy Metal Biosorption Using A Biopolymer Chitin	D. Saravanan, P. N. Sudha	Chemistry	19-23
7	Impact of peripheral cues on rural consumer buying decision for FMCG products with special reference to Palitana (Gujarat)	Dr K.S. Vataliya, Bhavik .P. Parmar	Commerce	24-26
8	A Growth of Rural Postal Life Insurance in India [A Study with special Reference to Dharmapuri District]	Dr. A. Vinayagamoorthy K. Senthilkumar	Commerce	27-28
9	Promotional Strategies for International Markets with respect to Agricultural Products	Dr. B. B. Bhosale	Commerce	29-30
29	Business Risk And Financial Risk - Indian Corporate Sector	Dr. M. Dhanabhakyam, P. Balasubramanian	Commerce	31-33
10	"Customer Relationship Management"- In Banking Industry	G.V. Kori, Sri. Basavaraj Huggi	Commerce	34-36
11	Role of Investment Banks and Institutions in Economic Development	Jitendra Dhirajlal Karia, Dr. (Prof.) Vijay Kumar Soni	Commerce	37-38
12	Nature Of Information Shared And Communication Methods Used In Small Manufacturing Firms	Vipul Chalotra	Commerce	39-41
13	China's WTO Accession: An Empirical Assessment of Merchandise Trade with India	Anjali Tandon	Economics	42-45
14	Regional Disparities - Social Sector Expenditure in Rural-Urban India	Dr. Shankar B. Ambhore, Dr. Ashok S. Pawar	Economics	46-47
15	(Presenting Thought About Industry, Trade And Co-operation Of Rajarshri Shahu Maharaj)	Dr. Ashok Shankarrao Pawar, Dr.Sunita J. Rathod	Economics	48-49
16	An Assessment On Poverty Alliviation Programmes In Rural India-A Case Study	Dr. Parvathamma G. L.	Economics	50-55
17	Liveability in Guwahati: A Factor Analytic Approach	Dr. Daisy Das, Dr. Ratul Mahanta	Economics	56-58
18	Backward Class Disparities in higher Education in India	Dr. Shankar B. Ambhore, Dr. Pawar Ashok S.	Economics	59-60
19	Revenue and Expenditure Pattern of Municipal Corporations of Punjab	Naresh Kumar	Economics	61-66

20	Livelihood Security of Traditional Fishermen of Kerala: Analysing and Identifying the Roles of Self Help Groups	(Dr.) D. Rajasenan, Rajeev B.	Economics	67-70
21	Levels and Types of Questions Raised by EFL Teachers In Southern Al-Mazar Directorate of Education	Dr. Jihad Al-Turki	Education	71-74
22	Issues And Recommendations Of National Knowledge Commission In Higher Education System	Vidhi Bhalla	Education	75-77
23	Multiple Sequence Alignment of Different Species	Perna, Pankaj Bhambri, Dr. O.P. Gupta	Engineering	78-82
24	Analyzing the Phylogenetic Trees with Tree- building Methods	Jasmine, Pankaj Bhambri, Dr. O.P. Gupta	Engineering	83-85
25	Low Power High Speed with Improved Noise Margin for Domino CMOS Inverter.	Pushpa Raikwal, Dr.Vaibhav Neema, Dr.Sumant Katiyal	Engineering	86-88
26	Analysis of Drag for an Aircraft Wing Model with and without Winglet	Mitul Patel, Sharvil Shah, Dharmendra Dubey	Engineering	89-91
27	Cognitive Radio	Chauhan Jayesh R.	Engineering	92-95
28	Problems In Teaching English As A Compulsory Subject	Prof. Madhvi R. Acharya	English	96-97
30	Financial Banking Is The Science Of Managing Money: Indian Financial System	Dr. Shailesh N. Ransariya, Dr. Shailesh N. Ransariya	Finance	98-100
31	Carbon Trading a Step towards Green Environment	Ashok R. Bantwa	Finance	101-102
32	Effect of Supplementation of A Multinutrient Chocolate Bar on Nutritional Status and Athletic Performance	P. Muhtulakshmi, Dr. M. Sylvia Subapriya	Home Science	103-104
33	Imperatives of Inclusive Growth for Sustainable Development of Indian Economy Post Globalization	Dr Mahalaxmi Krishnan	Indian Economy	105-107
34	RIGHT TO INFORMATION ACT AND THE ROLE OF PRESS, MEDIA & NGO'S	Dr. Krushna Chandra Dalai	Law	108-109
35	``Thesis: A Powerful Source Of Information``	Arvind M Bhadrashetty	Library Science	110-111
36	Present Day English and Inflections	Dr Syed Mohammed Haseebuddin Quadri	Literature	112-113
37	Jigsaw II: An Effective Strategy To Develop Reading Comprehension Of High School Students	Dr. P. Nagaraj, Sindhu Thamba	Literature	114-115
38	CAPITAL STRUCTURE ANALYSIS (An Empirical Study of Paper Mills in India)	Ashok Mundhra	Management	116-118
39	Emerging Trends In Indian Rural Market	Dr. N. Ramanjaneyalu	Management	119-121
40	Credit Card Usage in Coimbatore	G. Murali Manokari, Dr. R. Ganapathi	Management	122-126
41	Micro Credit – Two Sides of the Same Coin	R. Durga Rani, J. Gnanadevan, Dr. R. Ganapathi	Management	127-130
42	Work Place Stress and Yoga Therapy	K. Revathi, Dr. R. Ganapathi	Management	131-132
43	Customer's Satisfaction Towards Modernized Petrol Stations With Reference to Coimbatore City	Dr. R. Ganapathi	Management	133-137

44	Evaluation Tactics: A tool to evaluate success of corporate training programme	Dr. Shobha Dedhia	Management	138-140
45	A Preliminary Study On Issues And Challenges Faced In Measurement Of Social Media Return On Investment	Khushbu Pandya	Management	141-142
46	Profitability Analysis (A Case Study of Selected Public and Private Sector Companies)	Manish Manglik	Management	143-144
47	Performance Management System	S.Jayakrishna, N.Sainath, M.V.Subbareddy, N.Raji Reddy	Management	145-147
48	A Study On Organizational Culture In Bharath Heavy Eletrical Limited, Ranipet	S.Sridhar, D.Yuvaraj, V. Kandasamy	Management	148-150
49	Cost Effective Transportation	Sarada Prasanna Patra Dr. Manjusmita Dash	Management	151-154
50	A Study On Efficiency Of Outbound Training With Reference to Titan Industries, Hosur	V. Kandasamy, D. Yuvaraj, S. Ragothaman	Management	155-157
51	Performance Improvement Enhance The Efficiency	Vidya L. Hulkund	Management	158-159
52	Packaging- The Salient Seller	Vidya L. Hulkund	Management	160-161
53	An Empirical Study Of Student Satisfaction With Reference To Gujarat Technological University (Gtu)	Dr. Vijay K. Patel	Management	162-163
54	Maximizing Customer Profitability in Retailing Industry (Durable Goods) - Role of Analytical CRM -A Case Analysis	Dr.A.R.Krishnan, R.Selvamani	Management	164-165
55	Financial Inclusion - Role Of Banking Industry	Dr. K. Marutha Muthu, Ms.T. A.Tamilselvi	Management	166-167
56	The Growth of Self Help Groups in India: A Study	S.Ravi, Dr. P. Vikkraman	Management	168-170
57	Role of E-Banking	K. K. Devi	Marketing	171-172
58	Reasons after the war of going Green –Green Marketing	Kavita A. Trivedi	Marketing	173-175
59	Strongly Minimal Generalized Boundary	K. Chandrasekhara Rao, P . Padma	Mathematics	176-177
60	ACCESSORY RENAL ARTERY: A CASE REPORT	Archana U Shekokar, Vandana A Tendolkardolkar	Medical Science	178-179
61	Fibrinous Pericarditis: A Case Report	Vandana A Tendolkar, Archana U Shekokar	Medical Science	180-181
62	Social life, Addictions and Subjective Wellbeing of the Transsexuals	Seemanthini.T.S, Manjula. M. Y	Psychology	182-184
63	Using E-Content In Science Class: The Effect Of Treatment, Gender, And Their Interaction On Science Achievement	Suman Rani	Psychology	185-188
64	Bullying - Societal Curse- A Serious Issue	Latha Janaki. R, Dr.Kalyani Kenneth	Social Science	189-191
65	Factor Influencing Foetal Wastage	Dr. Dipti Bhavsar, Dr. C. D. Bhavsar	Environment	192-195
66	Approach Of Universilization Educational And Women Empowerment Of Rajarshri Shahu Maharaj	Dr. Ashok Shankarrao Pawar, Dr. Sunita J. Rathod	Economics	196-199



Sheared volcanics in the north of Pugging, East Siang District, Arunachal Pradesh

* T. K. Goswami **P. Bhattacharyya ***D. Bezbaruah

* Department of Applied Geology, Dibrugarh University, Dibrugarh 786004, Assam

ABSTRACT

In the Pugging area of East Siang district, Arunachal Pradesh, tongue like extension of the Yingkiong Group consists mainly of shale-phyllite-dolostone and quartzites of the Bomdo formation. In the north of Pugging, quartzites of the Bomdo formation are metamorphosed to quartz-muscovite-chlorite schists. At 11km NW of Pugging, the volcanics are intermixed with the very low grade metasediments of the Siyom Group. Both the volcanics and the metasediments have undergone ductile shearing overprinted by a brittle phase. The N-S trending shear zone at this place show lots of kinematic indicators from meso to grain scale with a dominant dextral shear sense. The sheared volcanics are hydrated while the metasediments are metamorphosed under greenschist facies condition. The shearing of the volcanics and metasediments may be coeval with the change in the axis of compression from ENE-WSW to E-W due to the Indian and Burmese plate collision.

Keywords : Volcanics, Metasediments, Dextral shearing, Pugging, Arunachal Pradesh

INTRODUCTION

Mafic volcanics associated with the Yinkiong Group of rocks are considered as the youngest volcanic activity in the Siang fold and thrust belt of eastern Arunachal Pradesh (Naqvi, 2001). These volcanics are mainly associated with the Palaeocene-Eocene Geku Formation of the Yingkiong Group. In the Siang valley, the volcanics are exposed with a NW-SE trend along Yinkiong-Pugging road and this trend changes to N-S along Yinkiong to Pangin (Singh, 1993). There are a number of publications with the descriptions of the compositional variations of different phases of intrusion, distributions and physical descriptions of the volcanics (Jain et al, 1974; Bhatt, 1984; Roychaudhuri, 1984 and Singh, 2007). On the basis of the associated fossil assemblages in the volcanics of the Dalbuing area of the Yamne Valley, Tripathi et al, 1988, assigned the age of the volcanics to be of Eocene age. Towards south of the Siang valley, the volcanics are folded and towards further south, the volcanics are exposed against the older Siwaliks along a splay of the Main Boundary Fault (Acharyya 2008).

In the north of Pugging (Fig.1 about here), these volcanics are intermixed with the metasediments of the Siyom Group; while in the Pugging proper, these are intimately associated with the phyllite-shale sequence - a tongue like northward extension of the Yinkiong Group (Bomdo Formation: Jain and Thakur, 1974). We concentrate on the area at 11 km north of Pugging, where the volcanics and the metasediments are sheared together. The 1km long best exposed shear zone consists of intensely deformed and pervasively foliated volcanics and metasediments. A mylonite zone is formed in the interior part while the outer part along with the western limb of the Rikor anticline suffered brittle deformation. Lots of quartz, epidote and calcite veins also serve as good shear sense indicators.

STRUCTURES

The one kilometer long dextral shear zone in the north of Pugging trends N-S and the mylonitic foliations dip westerly. The tectonites consist of sheared volcanics and the sheared metasediments of the Yinkiong and Siyom Group respectively. The phyllite-dolostone sequence of the Yinkiong Group (SE of Pugging in Fig.2 (Fig.2 about here) are asymmetrically folded. The F1 and F2 are coaxial and F1/F2 fold axis trend NNW.

This trend is similar to the direction of plunge of the Rikor anticline and should share the same episode of compression. The phyllites are becoming phyllonitic at places and the axis of the crenulations (F2) plunge gently to NNW (Fig.5f).

Mylonites in the shear zone

Sheared volcanics are mylonitic and brown to black in colour. Compositional bending with wavy foliation and quartz porphyroclast are observed. The pervasive S-C fabric is observed in the mylonite zone and the stretching lineations plunge south-erly. The C-surfaces are pervasive up to the grain scale and represent main mylonitic shear foliation. These surfaces consist of elongated actinolite, epidote, chloritoid, biotite and feldspar grains. The intermixing of the volcanic and metasediments are common. The shear bands in these metasediments are (represented as C' foliations, Fig.3c) (Fig.3 about here) are quartz poor (O'Brien et al, 1987) and assumes a sinistral shear sense and inclined to 30° to C-foliation (Fig.5d). The shear bands indicate involvement of a component of extension in the process of the development of mylonitic foliation. The volcanics might have supplied the heat required for the formation of mylonitic foliation for a considerable duration.

Veination

Veins of quartz, feldspar and calcite are frequently observed in the mylonitic volcanics and associated metasediments. The epidote and adularia veins represent a post deformation episode of vein formation related to the hydration of basalts. Adularia veins also exhibit extension fractures (fig.4f). Veins are either cleavage parallel or cleavage transected (Fig.3g)). Cleavage parallel veins represents a contemporaneity of the veination and folding episode, while cleavage transected veins are clearly a later phenomena. Cleavage transected veins are at high angles to the foliation.

Away from the shear zone, the western limb of the NW plunging Rikor antiform show conjugate sets of veins with dextral and sinistral senses and clearly a post fold episode (Fig.3e). The shear / hybrid joints developed in the limb represent a shape similar to δ-object. The angle between the conjugate shear joints is 60° and represents a brittle-ductile transition zone due to the oblique compression in the north-south direction. The folding of the veins and subsequent folding and shearing may be genetically related (Williams and Urai, 1989)

or they share the same episode of deformation. Veins may be initially tension gashes and subsequently rotated due to folding (Figs.3.f). Subsequently veins become shorter, gradually unfolded and finally dismembered. Bedding parallel veins may be overprinted by simple shear producing enechelon array of veins (Figs. 3b and d)

Microstructures and shear sense indicators

In the north of Yingkiong, the sandstone-siltstone-shale-volcanics sequence of Yinkiong Group is metamorphosed to talcose slate and phyllite (Jain and Thakur, 1974). In the present area of investigation, the volcanics (actinolite schists, chlorite schists and epidote schists with occasional compressed chert) and the metasediments (Schistose quartzite, quartz-mica schist, muscovite-chlorite schist and abundant quartz and calcite veins) exhibit considerable fabric asymmetry. Volcanics are fine grained and augite, chlorite, epidote, plagioclase, and k-feldspars are dominant. The composition indicates an original basaltic composition metamorphosed and hydrated. The effect of hydration is responsible for the epidotisation of the pyroxene. The feldspars are also sericitised. Augite and k-feldspar clasts in the matrix of epidote, chlorite and other phyllosilicates asymmetrically rotated (Figs.5 c and e) extended, dismembered in the limbs of the open folds (Figs.5 b, d and e). Asymmetric chloritoid porphyroclasts also show book-self gliding (Figs.4a, 5e). (Fig. 4 and 5 should be here). Small crenulations in the phyllite are asymmetrically rotated (Fig, 5f). Petrographic observations of the sheared volcanics also reveal euhedral epidote and veins of adularia. Euhedral epidote suggests a post deformation alteration of the volcanics.

Samples are collected from the core of the shear zone and thin sections are prepared parallel to the XZ plane of the finite strain and parallel to the lineation. The wavy foliation is defined by the composition bending consisting of quartz and asymmetric trails of feldspar porphyroclasts in the phyllonites and chlorite and pyroxene porphyroclasts in the sheared basalts. The porphyroclasts are elongated rotated and mostly showing sinistral senses. The grain margins are more or less straight and serrated indicating a protomylonitic stage. Pyroxene clasts show cross cutting microshears (Roy et al, 2010), bookshelf and pull apart structures (Figs.4a and 5e). Shear bends are penetrative to the grain scale. C' and C surfaces are making an acute angle relationship. These are characterized by elongated fine grained quartz, feldspar and mica flakes (Fig.5d). The chloritoid porphyroclasts show δ -type mantle porphyroclasts with characteristic bent trails (Fig.5a). Highly crenulated fine grained phyllites exhibit crenulation cleavage with distinct NW-SE orientation (Fig.5f).

DISCUSSION

In the north of Pugging, the contact between the volcanics of the Yinkiong formation and the Siyom Group is a sheared contact which is so far reported as the thrust contact. The shear zone trend almost north-south and initial ductile phase is overprinted by a brittle phase. The volcanics are sheared and hydrated. The associated sediments have suffered very low grade metamorphism. The effect of hydration could be observed as the basic minerals like pyroxene have altered to epidote and actinolite. Chloritoids are also formed in the metasediments. The fabric asymmetry indicates mainly dextral rotation of the grains. The dextral sense is also recorded in the mesoscale shear sense indicators (Fig.5g). The NE part of the Indian lithosphere might have contained an oblique ramp over which the Himalayan nappes climbed (Acharyya,

2008). The phyllite-dolomite sequence of the Yingkiong Formation show F1 and F2 coaxial folding trending to NW while the F3 fold plunge towards NNW. The change in the axis of compression might be responsible for the strike slip fault to develop in the north of Pugging which helped the Siang River to take sharp turn in its course. The F4 episode could be correlated to the major faulting/shearing in the region. In the Siang dome, the basic response to shortening is the lithospheric buckling. The shortening is laterally constrained between major faults (Burg and Podladchikov, 1999). The overall stress field shows a change from the ENE-WSW compression changing to transpression with compression axis changing its orientation to E-W direction due to the Indian and Burmese plate collision.

CONCLUSIONS

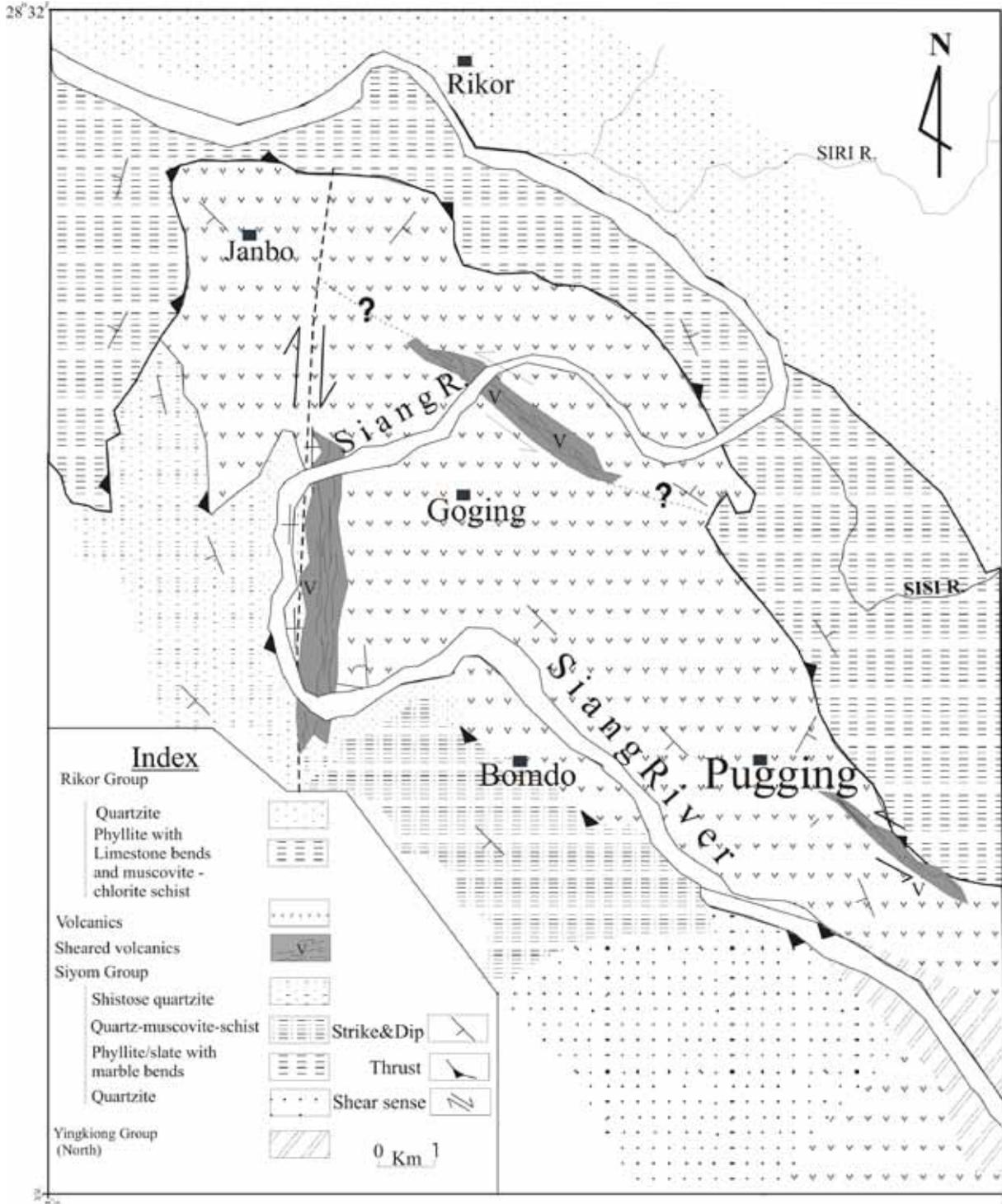
1. The earlier reported thrust contact between metasediments and volcanics at 11 km north of Pugging is a shear zone where earlier ductile fabrics are later overprinted by brittle deformation. The kinematic indicators suggest a dominant dextral sense of shear in the N-S trending shear zone.
2. In the north of Pugging, volcanics are observed to be entrapped within metasediments. Evidences of hydration in the volcanics represented by alteration of pyroxene by epidote actinolites and chloritoids
3. The shearing in the volcanics and metasediments in the north of Pugging involve both hydration of the sheared volcanics and thermally perturbed metasediments undergone low grade metamorphism.
4. Phyllite-dolomite sequence of the Yingkiong formation show F1 and F2 coaxial folding plunging to NW direction whereas F3 axis plunges to NNW direction. The F1 and F2 trend is similar to the trend of the axis of the Rikor anticline and should share the same episode of compression.
5. The Siang River takes a sharp bend in the north of Pugging and may follow a strike slip fault SW of Sisi Nala.
6. Syn-sedimentary volcanism in the present area indicates occurrence of a short lived rift basin in the buckled north-east part of the Indian plate.
7. The subsequent east-west directed shortening due to the Indian and Burmese plate collision witnessed thrusting/shearing and thrust constrained folding

Description of the figures:



Fig.1.Location map, the study area is shaded

Fig.2. Geological map of the area studied. At 11 km NW of Pugging the contact between the Siyom Group and the volcanic is an N-S trending dextral shear zone. Another NW-SE shear zone is shown in the 90o bend in the Siang River. SE of Pugging the phyllite-dolostone sequence shows another shear zone with sinistral sense.



- a. Sheared metavolcanics show cleavage parallel veins with dextral shear sense
- b. Dextrally rotated veins in the sheared volcanics
- c. C' shear bend and sinistrally rotated and dismembered feldspar clast
- d. Dextrally rotated veins in the sheared volcanics
- e. Shear / hybrid joints in the western limb of the Rikor Antiform
- f. Right lateral shifting of the veins (Plan view)
- g. Sinistral rotation of the veins in the volcanics
- h. Dolomite-Phyllite co folding. The folds verges to NNW

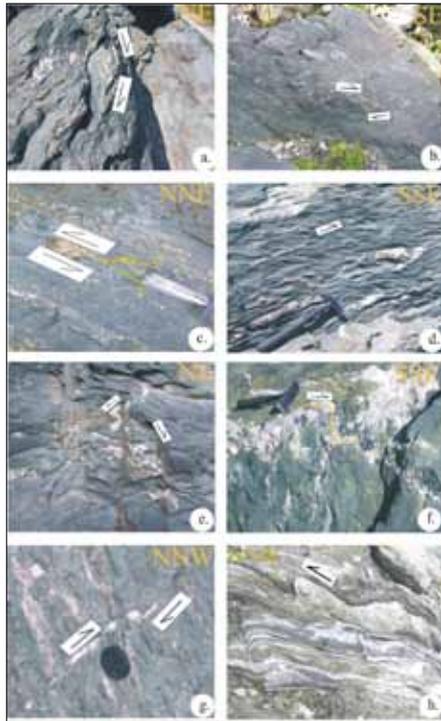


Fig.3

- a. Pull apart microstructure shown by chloritoid grains
- b. Metapelites and metavolcanics. Chloritoid clasts in the metavolcanics shows dextral shear sense
- c. Late growth of actinolite in the compressed pumice
- d. Late growth of euhedral epidote shows brittle fracturing
- e. Sheared pumice, the sense is sinistral
- f. Late growth of adularia vein shows extension fractures

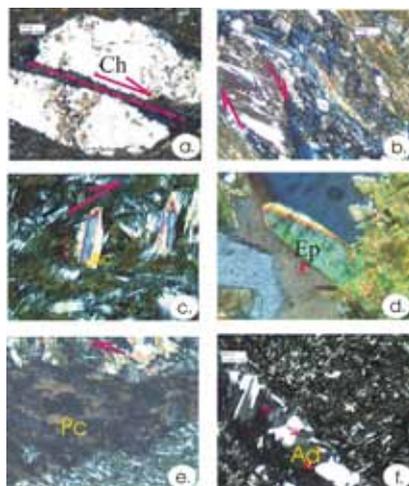


Fig.4

- a. Chloritoid clasts showing dextral shear senses
- b. Actinolite schist showing dextrally sheared compressed pumice
- c. Actinolite showing scar fold above and quartz rich layer show dextral shear sense below
- d. Dextrally sheared epidote vein in compressed pumice and quartz poor C'' extension shearing
- e. Synthetic microfaults in the chlorite clasts
- f. Asymmetric microcrenulation in the phyllonite. The shear sense is sinistral. The steep limb verges towards NNW

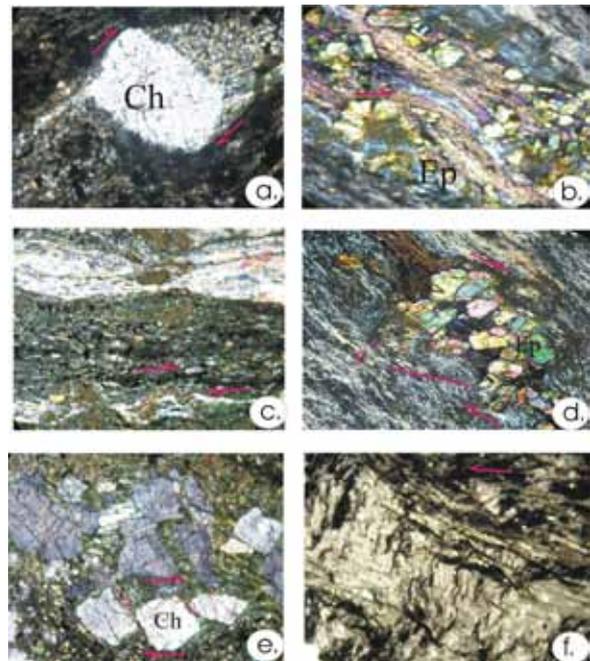


Fig.5

REFERENCES

Acharyya, S.K. and Saha, P. 2008. Geological setting of the Siang Dome located at the Eastern Himalayan Syntaxis, 23rd Himalayan-Karakoram-Tibet Workshop, Vol.5, Issue 7, pp.16-17 | Roy, P., Jain, A.K. and Singh, S.2010. Microstructures in Mylonites along the Karakoram Shear Zone, Tangste Valley, Pangong Mountains, Karakoram, Jour. of Geol. Soc. of Ind., 75, 5, pp.679-694 | Bhatt, M.I., 1984. Abor volcanic: Further evidence of a birth of a Tethys Ocean in Himalayan segment, Journal of Geological society of London, 141,763-775 | Burg, J.P. and Podladchikov, Yu. 1999. Lithospheric scale folding: numerical modeling and application to the Himalayan syntaxis, International Journal of Earth Sciences, 88, pp.190-200 | Jain and Thakur, 1974 Jain, A.K., Thakur, V.C. and Tandon, S.K. (1974) Stratigraphy and structure of the Siang District of Arunachal Pradesh. Jour.Him. Geol., v.4, pp.28-60. | Naqvi, S.M., 2001. Geology and Evolution of Indian Plate (From Hadean to Holocene-4Ga to 4 Ka), Capital Publishing Company, p.298 | O'Brien,D.K.,Wenk,H.R, Ratschbacher,L and You, Z. 1987. Preferred orientation of phyllosilicates in phyllonites and ultramylonites. Jour. Struct.Geol., 9, 5/6,719-730 | Passchier, C.W. and Trouw, R.A.J. (1996) Microtectonics, Springer-Verlag, 110p. | Roy Chaudhuri, J., 1984. Abor Group of Arunachal Pradesh, India. Rec. Geol. Surv. Ind,113 (A),48-57 | Singh, S., 1993. Geology and tectonics of the eastern syntaxial bend, Arunachal Himalaya. Jour.Him. Geol, v.4, pp.149-163. | Singh, A.K., 2006. Petrography, geochemistry and petrogenesis of Abor volcanic, Eastern Himalayan Syntaxial Bend, Himalayan Geology, 27 (2), pp.163-181 | Tripathi, C., Gaur, R.K., and Singh Surendra , 1988. A note on the occurrence of Nummulitic limestone in East Siang district, Arunachal Pradesh, Geol.Surv.Ind.Spec. Publ., 11 (1), pp.251-254 | Williams, P.F. and Urai, J.L., 1989. Curved vein fibres: an alternative explanation, Tectonophysics, 158, pp.311-333



Sara Publishing Academy
Indian Journal Of Applied Research
Journal for All Subjects



Editor,
Indian Journal Of Applied Research
8-A, Banans, Opp. SLU Girls College,
New Congres Bhavan, Paldi, Ahmedabad-380006.
Contact.: +91-9824097643 E-mail : editor@ijar.in