LIST OF PLATES

I.1	Panoramic view of the Ramgarh-Mukteswar area	8
III .1A	Porphyroblastic gneiss	29
III.1B		. 29
III.2	Quartz veins folded on F ₁ showing axial plane relation with schistosity	33
s.III	Nathuakhan quartzites and phyllites	35
III.4A	Limestone showing contemporaneous folding	39
III.4B	Limestone showing micro-faulting	39
III.5A	Small folds in limestone related to F_2	40
III.5B		40
III.6A	Pucker folds in phyllites related to the Ramgarh thrust	43
III.6B	Fine puckering in phyllites related to the Ramgarh thrust	43
III.7A	Partly mylonitised granite of Ramgarh group	46
III.7B	Mylonitised granite showing drawn out streaks of quartz and sericite-quartz	46
III.8A	Slicken type 'a' lineation in mylonitised granite	50
III.sB	Boudinaged quartz-vein in phyllites	50
III.9A	Pebbly variety of Titoli quartzite	52
III.9B	Graded-bedding in Titoli quartzite	5 <u>2</u>
IV.1A	Rotated garnet in mica schist	58
IV.1B	Garnet in garnet - static enclosed within rotated	58
		• 16

IV.2A	New micas along fractured hinges of microfolds	60
IV.2B	Garnet in garnet - rotated enclosed with static	64
IV.3	Staurolite porphyroblast in mica schists	66
IV.4A	Augen of a plagioclase in gneissic groundmass	70
IV.4B	Rim of quartz-plagioclase around potash feldspar porphyroblast with myrmekite	70
IV.5A	Porphyroblast of potash feldspar showing superimposition of cross-hatching over carlsbad twins	74
IV.5B	Rim of quartz-eligoclase around orthoclase porphyroblast with myrmekite	74
IV.6A	Garnet alters to chlorite	79
IV.6B	Texture of phyllonite	7 9
IV.7A	Quartzite shows equigranular mosaic of interlocking quartz grains	84
IV.7B	Texture of Lusgaini quartzite	84
IV.8A	Texture of Titoli quartzite	88
IV.8B	Crinkling due to differential slipping in Nathuakhan phyllites	88
IV.9	Crinkling of foliation in Lusgaini phyllites	91
IV.10A	Texture of Sayalgad limestone	95
IV.10B	Texture of mylonitised granite	95
IV.11A	Typical mylonitic texture in sheared granite	97
IV.11B	Crinkling and strain-slip in mylonitised granite	97

IV.12A	Texture of epidiorite	102
IV.12B	Texture of metabasalt	102
V.1A	Ribbon lineation (L ₁) in flaggy quartzites	
	of Almora Nappe (Loc. Half a mile east of Bhulmaria)	113
V.1B	Drag fold in phyllonites (L2)	113
V.2	Drag puckers (kinks) in phyllonites (Loc. near Bhulmaria)	116
V.3	Strain-slip cleavage (S ₃) in Almora Nappe	151
V • 4	Strain-slip cleavage (S ₅) in Krol Nappe	152
	LIST OF TABLES	:
III.1	Tectonic succession of the Ramgarh- Mukteswar area	26
V•1	Minor structures developed during different tectonic events in the rocks of Ramgarh-Mukteswar area	107
VI .1	Chemical analysis of schists and gneisses	17 2