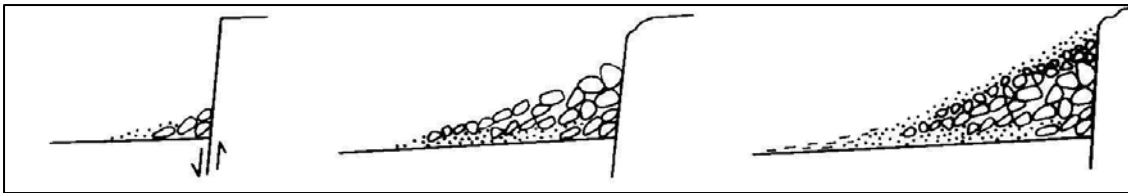
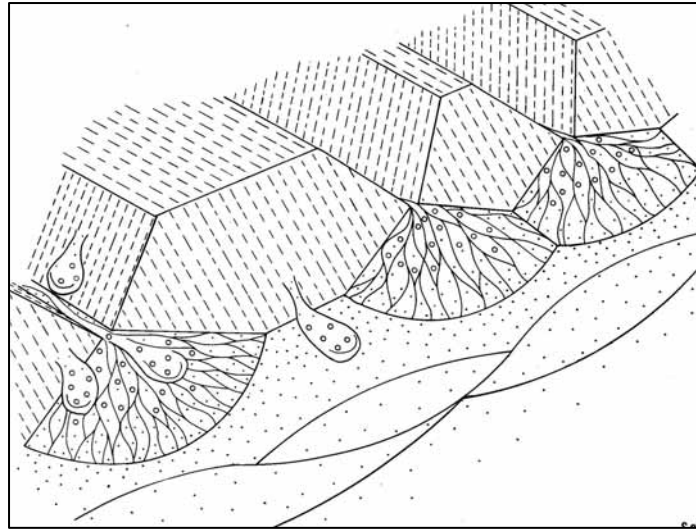


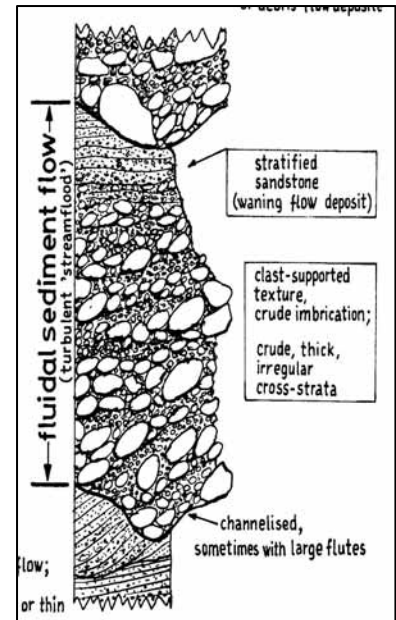
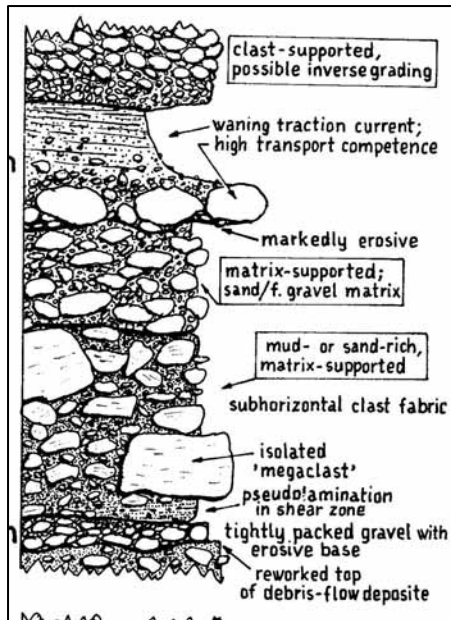
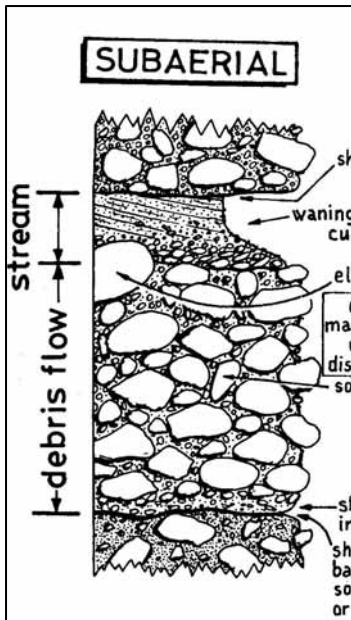
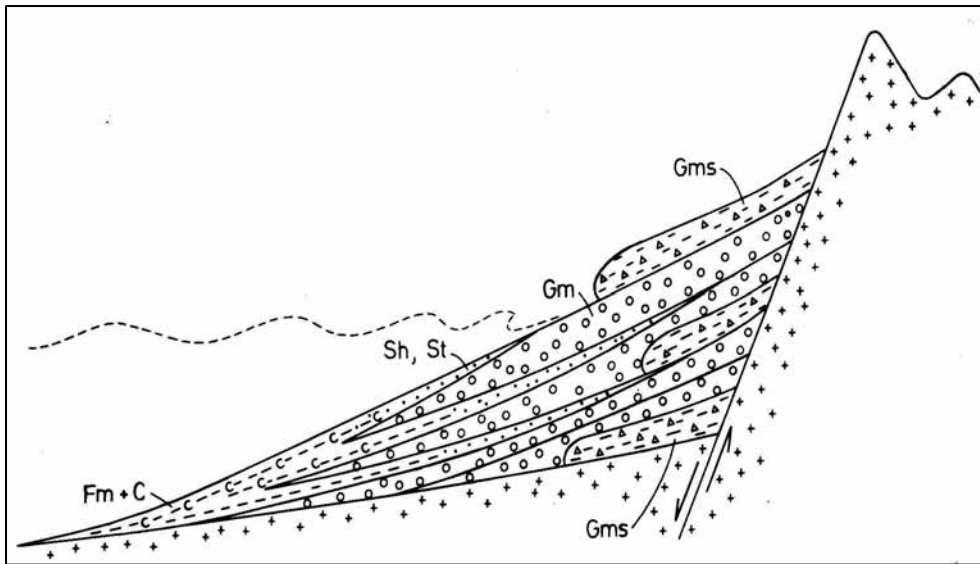
GY 402 Sedimentary Petrology

Lectures 13 and 14: Immature Sediment, Alluvial Fans and Braided Streams

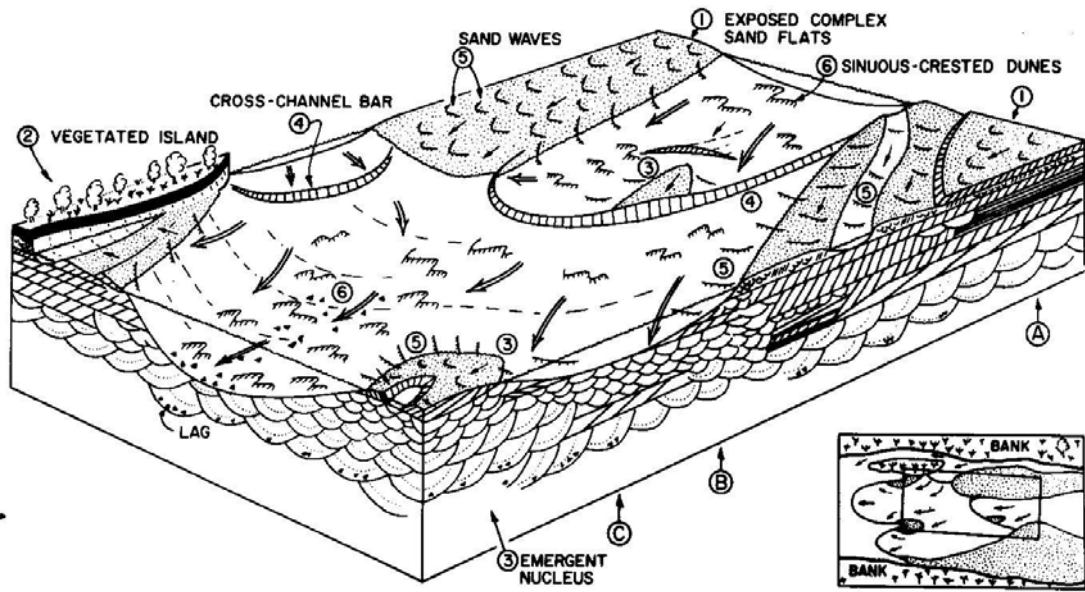
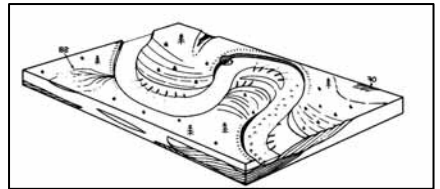
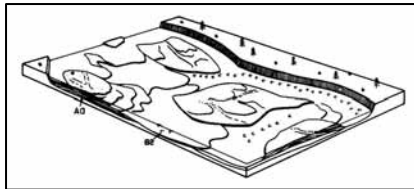
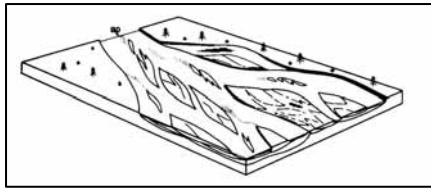
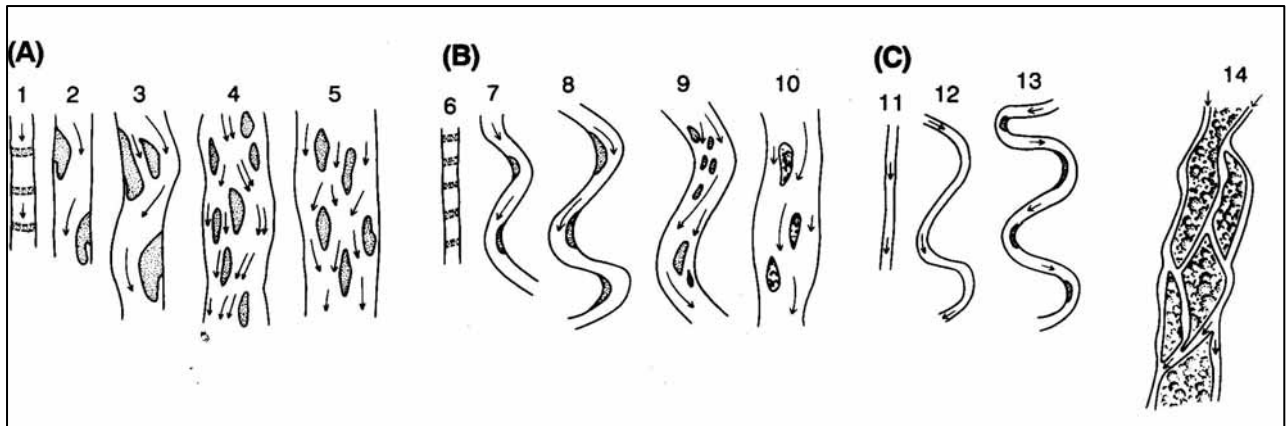


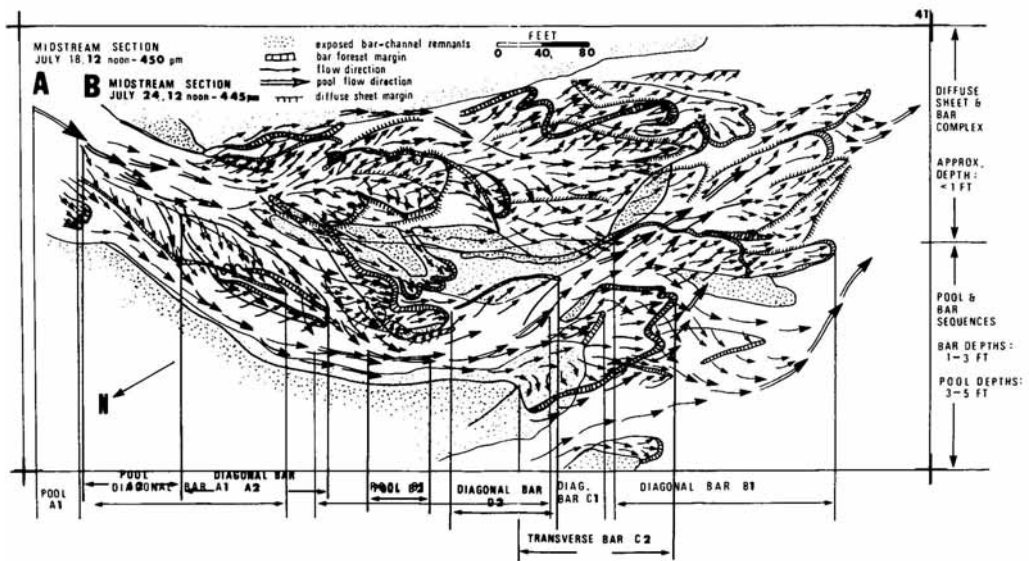
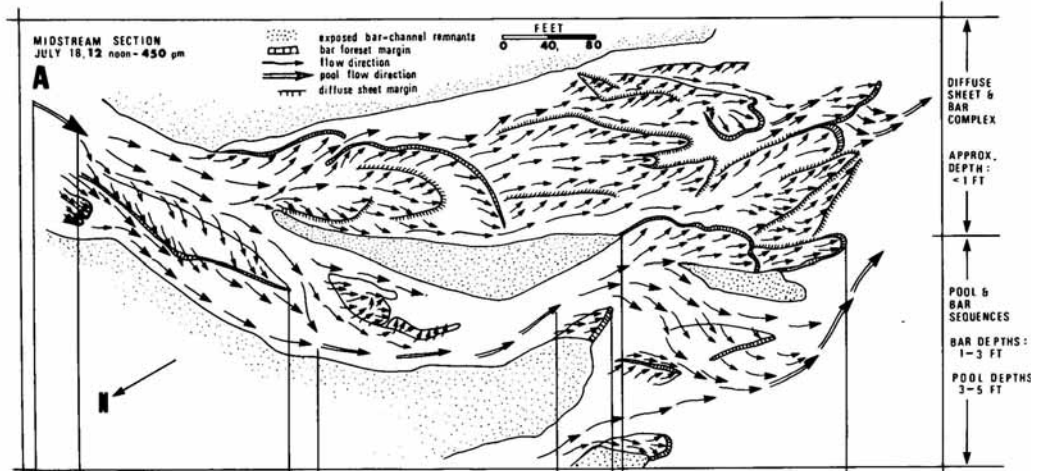
Facies code	Facies	Sedimentary Structures	Interpretation
Gms	massive, matrix supported gravel	grading	debris flow deposits
Gm	massive or crudely bedded gravel	horizontal bedding, imbrication	longitudinal bars, lag deposits, sieve deposits
Gt	gravel, stratified	trough cross beds	minor channel fills
Gp	gravel, stratified	planer cross beds	longitudinal bars, deltaic growths from older bar remnants
St	sand, medium to very coarse, may be pebbly	solitary or grouped trough cross beds	dunes (lower flow regime)
Sp	sand, medium to very coarse, may be pebbly	solitary or grouped planer cross beds	linguoid, transverse bars, sand waves (lower flow regime)
Sr	sand, very fine to coarse	ripple cross lamination	ripples (lower flow regime)
Sh	sand, very fine to very coarse may be pebbly	horizontal lamination parting or streaming lineation	planer bed flow (upper flow regime)
Sl	sand, very fine to very coarse may be pebbly	low angle (<10°) cross beds	scour fills, washed-out dunes, antidunes
Se	erosional scours with intraclasts	crude cross bedding	scour fills
Ss	sand, fine to very coarse, may be pebbly	broad, shallow scours	scour fills
Fl	sand, silt, mud deposits	fine lamination, vey small ripples	overbank or waning flood
Fsc	silt, mud	laminated to massive	backswamp deposit
Fcf	mud	massive, with freshwater molluscs	backswamp pond deposits
Fm	mud, silt	massive, desiccation cracks	overbank or drape deposits
C	coal, carbonaceous mud	plant, mud films	swamp deposits
P	carbonate	pedogenic features	paleosol

All un-referenced figures from: Walker, R.G. and James, N.P., 1992. Facies Models. Response to Sea Level Change. *Geological Association of Canada*, 409p.



Nemec, W. and Steel, R.J., 1984. Alluvial and coastal conglomerates: their significant features and some comments on gravelly mass-flow deposits. In Koster, E.H. and Steel, R. eds), *Sedimentology of Gravels and Conglomerates*. *Canadian Society of Petroleum Geologists Mem. 10*, 1-31.





Hein, F.J. 1984. Deep-sea and fluvial braided channel conglomerates: a comparison of two case studies. In Koster, E.H. and Steel, R. eds), *Sedimentology of Gravels and Conglomerates*. *Canadian Society of Petroleum Geologists Mem. 10*, 33-49.

