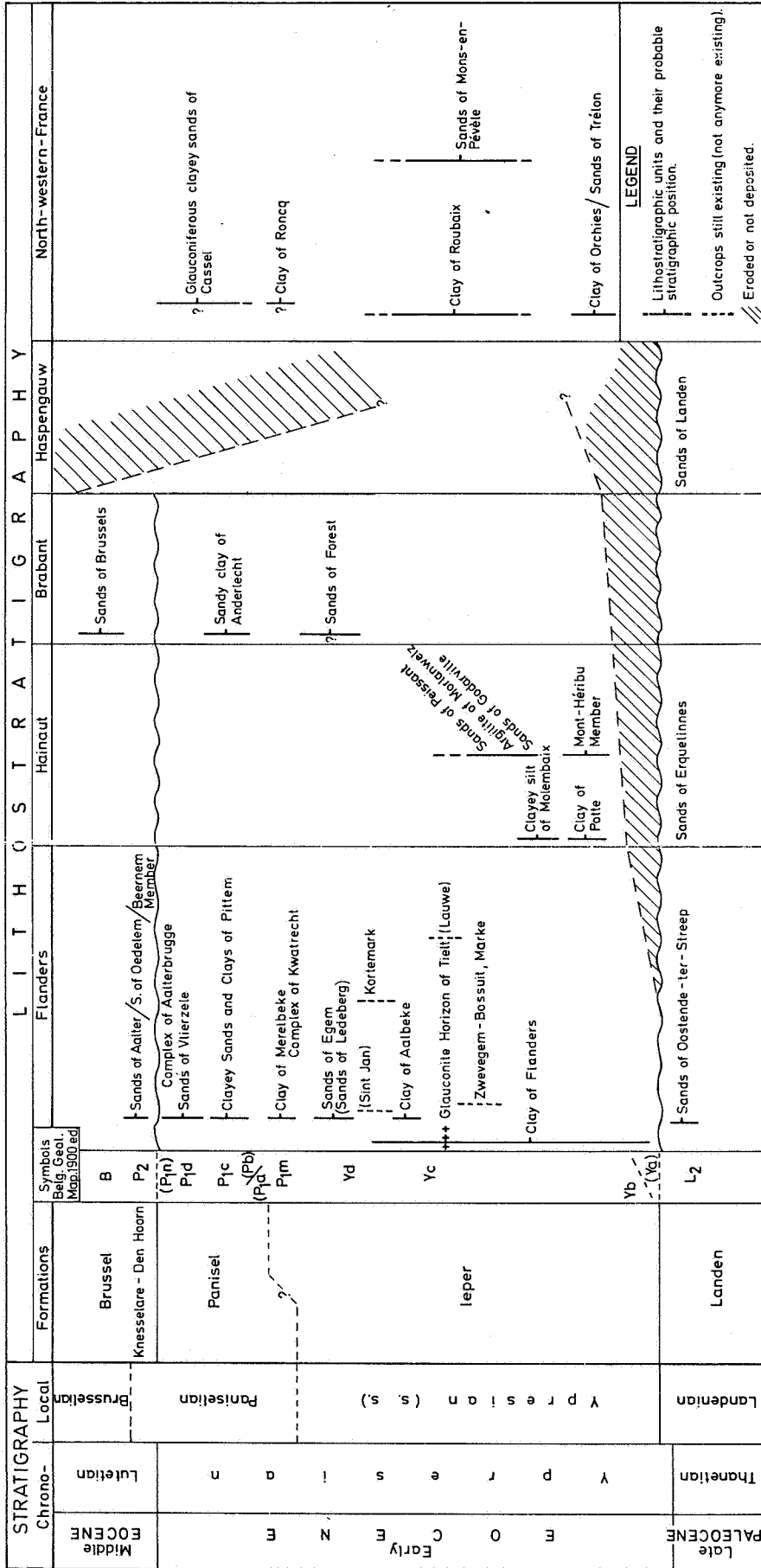


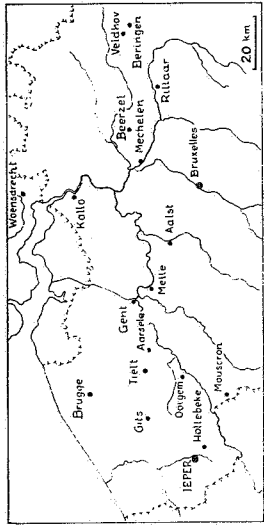
PLANCHES



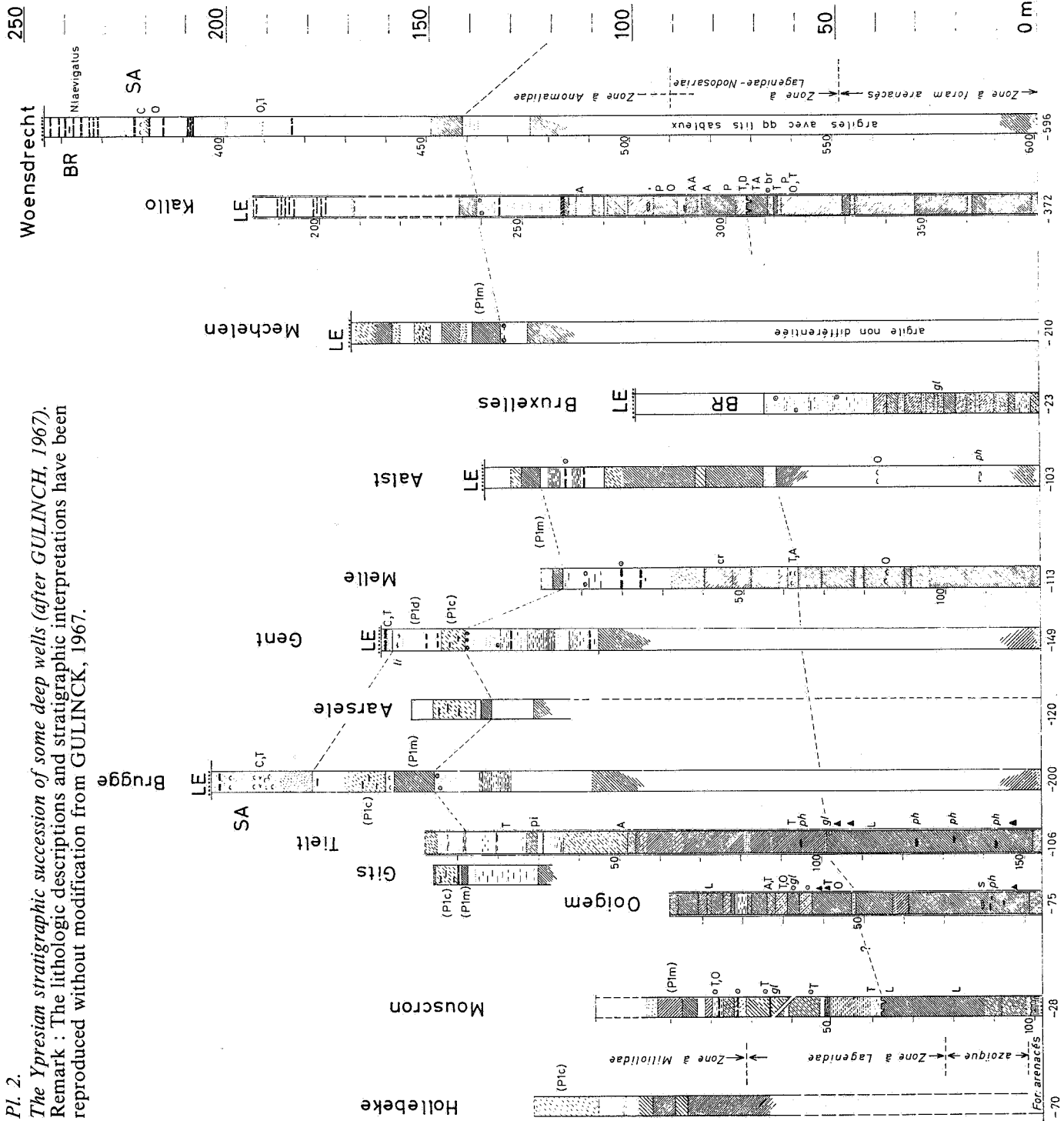
Pl. 1
Lithostratigraphy of the Ypresian s.l. in the Belgian Basin.

Remark: Note that this plate reflects the state of knowledge and insights on the Belgian Ypresian stratigraphy at the time of completion of the present text in 1984.

The Ypresian stratigraphic succession of some deep wells (after GULINCH, 1967).
 Remark : The lithologic descriptions and stratigraphic interpretations have been reproduced without modification from GULINCH, 1967.



- Num planulatus
 - Cardita
 - Turritella
 - Ostrea
 - Amusium
 - Ditropa
 - Pinna
 - cr crustacés
 - br bryozoaires
 - A foraminifères abondants
 - L Lingula
 - pi poissons (écailles)
 - li débris ligniteux
 - ph concr phosphatées
 - s septaria
 - gl glauconie
 - argile t. lourde
 - argile silteuse ou légèrement sableuse
 - silt ou sable fin argileux
 - argile & sable interstratifiés
 - sable + lentilles argileuses
 - sable stratifié
 - sables
- LE : LEDIEN
 BR : BRUXELLIEN
 SA : Sables d'Aalier
 (Pic) (Pim) : PANSELIEN INFÉRIEUR.



Pl. 3.- Index fossils, zonal markers and biozones recognized in the Ypresian stage.

IEPERFORMATION IN FLANDERS		M I C R O F O S S I L									
Formation	Lithostratigraphic members S.L. & M. 1980	Lithology GULINCK 1967	Benthonic Foraminiferids WILLEMS, 1980		Planktonic Foraminiferids WILLEMS, 1980	Large Foraminiferids GULINCK, 1967 WILLEMS, 1980	Calcareous Nannoplankton MÜLLER & WILLEMS, 1981	Dinoflagellates appearances after DE CONINCK, 1981	COSTA & MÜLLER 1978		
			Associa-tions	Species							
Mere beke	laminated clay		BFass VI	poor fauna, dominated by <i>Epistominella tiras</i> <i>Elphidium robustus</i> <i>Cibicides proprius</i>	Numulites <i>planulatus</i>				Kisselovia colothrypa		
				<i>Spiroplectammina dipardiza</i> <i>Polymorphina</i> spec. div. <i>Bolivina</i> spec. div. <i>Turritina</i> spec. div. <i>Carinulina</i> spec. div. <i>Panorotalia</i> spec. div. <i>Elphidium latiforsatum</i> <i>Cibicides</i> gr. <i>carinata</i> <i>Cibicides</i> spec. div. <i>Cibicides</i> <i>auricularius</i>							
Egem	fine sand		BFass V	<i>Turritina brevispira</i> <i>Alabamina wilcoensis</i> <i>Cibicides</i> spec. div.	Pseudohastigerina wilcoensis <i>Gombelitina triseriata</i> <i>Gomphoceras</i> sp. <i>Elphidium</i> sp. <i>Turborotalia peninsulara</i> <i>Turborotalia solidadensis</i> <i>Globigerina aquionensis</i>				Kisselovia aff. <i>ciathrata</i>		
				<i>Turritina brevispira</i> <i>Textularia</i> sp. Ka-303.9 <i>Asterigerina bartoniana</i> <i>Karreriella fallax</i> Ka-312.5 <i>Textularia smithvillensis</i> <i>Karreriella danica</i> <i>Xobosaria latejugata</i> Ka-322 <i>Clavulina</i> spec. div.							
Flanders	silty clay with sandy layers	heavy and silty clay	BFass IV	<i>Turritina brevispira</i> Ka-303.9 <i>Textularia</i> sp. Ka-303.9 <i>Asterigerina bartoniana</i> Ka-303.9 <i>Karreriella fallax</i> Ka-312.5 <i>Textularia smithvillensis</i> Ka-312.5 <i>Karreriella danica</i> <i>Xobosaria latejugata</i> Ka-322 <i>Clavulina</i> spec. div.	<i>Globigerina patagonica</i> same zone	Numulites <i>planulatus</i> Ka-310.8			Kisselovia aff. <i>ciathrata</i> Ka-300		
				<i>Lenticulina</i> spec. div. Ka-323.5 <i>Margulinopsis</i> spec. div. Ka-335 <i>Cibicides tendani</i> Ka-335 <i>Pullenia quinqueloba</i> TT-1095							
E	silty clay		BFass III	<i>Dentalina spinosens</i> <i>Eponides lunata</i> <i>Sponides plummerae</i> <i>Ammonia</i> sp. cf. <i>Al. danicus</i> <i>Cibicides crassus</i>	<i>Turborotalia ebensis</i> <i>Turborotalia patagonica</i> <i>Globigerina aquionensis</i>				Kisselovia pallidum (?) <i>Dreacodinium solidum</i> <i>Euronicysta ursulae</i>		
				<i>Dentalina spinosens</i> <i>Eponides lunata</i> <i>Sponides plummerae</i> <i>Ammonia</i> sp. cf. <i>Al. danicus</i> <i>Cibicides crassus</i>							
R	laminated clay		BFass II	<i>Ammodiscus septatus</i> <i>Wilsammina paleocena</i> <i>Haplophragmoides burrowsi</i> <i>Haplophragmoides walteri</i> <i>Caecareus foraminiferus</i>	rare specimens rare specimens				Kisselovia meckelfeldensis Ka-330		
				<i>Rhoadammina</i> spec. div. <i>Ammodiscus siliceus</i> <i>Reophax</i> spec. div. <i>Reophax</i> sp. <i>Recurvirodes</i> sp. <i>Spiroplectammina spectabilis</i> <i>Trochammina</i> spec. div. <i>Trochammina subocena</i>							
Mont Héribu			BFass I	<i>Rhoadammina</i> spec. div. <i>Ammodiscus siliceus</i> <i>Reophax</i> spec. div. <i>Reophax</i> sp. <i>Recurvirodes</i> sp. <i>Spiroplectammina spectabilis</i> <i>Trochammina</i> spec. div. <i>Trochammina subocena</i>					Kisselovia crassoramosa Kisselovia meckelfeldensis Pseudocamisia trinema	M. Asstra	
				<i>Rhoadammina</i> spec. div. <i>Ammodiscus siliceus</i> <i>Reophax</i> spec. div. <i>Reophax</i> sp. <i>Recurvirodes</i> sp. <i>Spiroplectammina spectabilis</i> <i>Trochammina</i> spec. div. <i>Trochammina subocena</i>							

PLATE 3

LITHOSTRATIGRAPHIC MEMBERS		ASSEMBLAGES						Otoliths
Formation	Lithostratigraphy	Microproblematica	Radiolarians	Ostracods	Palynology	Diatoms	Dasyclads	NOLF, 1974 DELAUNOIS 1981
	GULINCK 1967 S.L. & M. 1980	WILLEMS, 1972	WILLEMS, 1981	WILLEMS, 1973, 1977	ROCHE, 1973	WILLEMS, 1982	WILLEMS & GENOT, 1984	
Merebeke	laminated clay				zone 4			
		Egem	Coniarcella variabilis Spinarcella guttiformis	spherical radiolarians (more frequent).	Paracypris whitecliffensis ass. 6 Clithrocyclotheridae moutoni Eocytherura hymensis ass. 5 Schizocythere appendiculata Schizocythere tessellate		Terquemella	
			Voortbuisemella gracilis	spherical radiolarians (rare)	Cytheridea neuburyensis ass. 4 fragments	presence of Spinizonocolpites echinatus		
Flanders	silty clay with sandy layers	Pseudarcella rhumbleri Yonniellina dendroloba Yonniellina capitiformis Voortbuisemella gracilis		Echinocythereis reticulatissima Echinocythereis tenuis Trachyleberis aculeata Cytherella londinensis ass. 3 Heelina aranea Trachyleberidea prestwichiana Schuleridea perforata	zone 2			
		Pseudarcella trapeziformis Yonniellina feugueri Yonniellina concava Calvina kalleensis		Cytherella londinensis Cytheretta scrobiculoplicata Schuleridea perforata ass. 1 Trachyleberidea prestwichiana				
Mont Heribu	laminated clay			fragments				Glyptophidium polli
			conical radiolarians (rare)				biconcave and low biconvex diatoms high biconvex diatoms main level	

W. WILLEMS March 1982

