TABLE OF CONTENTS

Acknowledgeme	ents	i
Acknowledgements Table of Contents THE DATA AND THE NILE VALLEY INTRODUCTION CHAPTER 1 AIMS AND OBJECTIVES 1.1 Assets and resources of the ruling class 1.2 The nature of the investigation 1.3 Land ownership 1.4 The rural workforce 1.5 Location of portrayed estates 1.6 Economic history of the Old Kingdom 1.7 Studies CHAPTER 2 RESEARCH METHODOLOGY 2.1 Research methods 2.2 Data preparation 2.3 Resource categories 2.4 Interpretation of funerary material 2.5 The multi-functional tomb 2.6 Multi-functional decoration 2.7 Service to Maat 2.8 Reading Egyptian art SECTION ONE RESOURCES OF THE DESERT CHAPTER 3 DESERT ANIMALS 3.1 Focus of enquiry: desert animals as an economic resource 3.2. Distribution of data 3.2.1 Desert animals most frequently depicted in presentation scenes 3.2.2 Desert animals depicted less frequently in presentation scenes 3.3.2 Economic value of desert animals 3.4 Desert animals in the 'Parade of Animals' 1 Historical development of images and themes 3.5 The desert hunt 3.5.1 Historical development of images and themes 3.6 Returning from the hunt 3.7 Breeding and domestication	iii	
CHAPTER 1 AIMS AND OBJECTIVES 1.1 Assets and resources of the ruling class 1.2 The nature of the investigation 1.3 Land ownership 1.4 The rural workforce 1.5 Location of portrayed estates		1
		3
Chapter 1	AIMS AND OBJECTIVES	3
1.1	Assets and resources of the ruling class	3
1.2		3
1.3	Land ownership	4
1.4		4
1.5	Location of portrayed estates	4
1.6	Economic history of the Old Kingdom	5
1.7	Studies	5
CHAPTER 2	RESEARCH METHODOLOGY	9
	Research methods	9
		9
2.3		10
	·	10
		12
		12
		13
2.8	Reading Egyptian art	13
SECTION ONE	RESOURCES OF THE DESERT	15
CHAPTER 3	DESERT ANIMALS	17
3.1	Focus of enquiry: desert animals as an economic resource	17
3.2	Distribution of data	17
3.2.1		17
3.2.2	Desert animals depicted less frequently in presentation scenes	18
3.3		18
3.4		18
3.4.1		18
		22
		22
	-	24
		25
3.8	Summary	25
SECTION TWO	THE PASTORAL ENVIRONMENT	29
CHAPTER 4	DOMESTIC CATTLE	31
4.1	Egyptians and domesticated cattle	31
4.2	Focus of enquiry: cattle herds as an official's resource and the measure of his wealth	31
4.3	Types of cattle	32
4.3.1	Polled cattle	32
4.3.2	Short-horned cattle	33
4.3.3	Types of cattle identified by captions	33

4.	.4 Cattle husbandry	36
4.	.4.1 Historical development of images and themes	36
4.	.5 Herders of the estate	38
4.	.6 Cattle in the Parade of Animals	39
4.	.6.1 Historical development of images and themes	39
	.7 Inscriptional material relating to cattle	42
	7.1 Historical development	42
	.8 Herd numbers	43
	9 Summary	45
C 5	Total Farmonia of Command Management	49
CHAPTER 5		
	Annual movement of cattle, Dynasties 4 to 8	49
	.2 Fighting bulls	51
5	.3 Summary	52
CHAPTER 6	"SMALL CATTLE" (SHEEP AND GOATS)	53
S	HEEP	
6	.1 Focus of enquiry: (1) Domesticated sheep as an economic resource	53
6	.2 The portrayal of sheep in Old Kingdom tombs	53
	.2.1 Historical development of images and themes	54
ŗ	DOMESTIC GOATS	-
	6.3 Focus of enquiry: (2) Herds of domesticated goats as an economic resource	55
	5.4 The portrayal of goats in Old Kingdom mortuary chapels	55
	6.4.1 Historical development of images and themes	56
	5.5 Goats in the parade of animals	57
	•	
	5.1 Historical development of images and themes	57
	.6 Material evidence	57
6	.7 Summary	58
CHAPTER 7	Donkeys	61
7	.1 Focus of enquiry: donkeys as an official's resource	61
7	.2 The portrayal of donkeys in Old Kingdom mortuary chapels	61
7	.2.1 Historical development of images and themes	61
7.	.3 Summary	64
SECTION	THREE THE AGRARIAN CONTEXT	67
CHAPTER 8		
8.	Focus of enquiry: cereal crops as economic resources for elite officials	69
8.	1.1 Cereal crops represented in Old Kingdom tombs	69
	.2 Planting: ploughing, hoeing and seed	70
8.	2.1 Historical development of images and themes	70
8.	.3 Harvesting the cereal crops	71
8.	3.1 Historical development of images and themes	71
8.	4 Storage of the grain	74
8.	4.1 Historical development of images and themes	74
8.	.5 Inscriptional data	76
	6 Other evidence: data for the usage of the grain crop	78
8.		78 78
Chapter 9	Europ Chang E	5.4
	The Otto I Life	81
9.		81
	1.1.1 Flax crops represented in Old Kingdom tombs	81
	2 Harvesting flax plants	81
	2.1 Historical development of images and themes	81
	Dealing with the harvested flax plants	82
	3.1 Historical development of images and themes	82
9.	4 Inscriptional data	83
9.	.5 Other evidence	83
9.	.6 Summary	84

SECTION FOUR RESOURCES OF THE MARSHLANDS		87
CHAPTER 10	Fish	
10.1	Focus of enquiry: fish and fishing as an economic resource for a great estate	89 89
10.2	Depiction of fish species in fishing industry scenes	89
10.3	Methods of catching fish	90
10.4	Fishing scenes	91
10.4.1		91
10.5	Scenes of fish gutting and drying	94
10.5.1		95
10.6	The destination of the catch	96
10.7	Work force in fishing scenes	96
10.8	Summary	97
CHAPTER 11	WILDFOWL AND POULTRY	99
11.1	Focus of enquiry: birds as an economic resource for a great estate	99
11.1.1		99
11.1.2	1 ,	100
11.2	Trapping waterbirds: the clapnet scene	101
11.2.1	Historical development of images and themes	101
11.3	Poultry yard scenes	104
11.3.1	Historical development of images and themes	104
11.4	Procession of birds	104
11.4.1		105
11.5	Summary	106
CHAPTER 12	Papyrus	109
12.1	Focus of enquiry: value of the papyrus plant to an official's estate	109
12.1.1		109
12.1.2		110
12.2	Gathering papyrus in the marshes	110
12.2.1	Historical development of images and themes	110
12.3	Papyrus skiffs and rafts	111
12.4	Construction of papyrus skiffs	112
12.4.1	Historical development of images and themes	112
12.5	The papyrus skiff in use: tomb owner on the skiff	112
12.5.1	Historical development of images and themes	113
12.6	The papyrus skiff in use: papyrus skiffs and rafts used by labourers	113
	Historical development of images and themes	114
12.7	Rope and cord making	114
12.7.1	Historical development of scenes	115
12.8	Papyrus as cattle fodder	115
12.9	Summary	115
SECTION FIVE	E THE RURAL ESTATE	119
Chapter 13	MANAGEMENT OF THE ESTATE	
13.1	Management of the Estate Focus of enquiry: managing a large estate	119
13.1	The relationship of the tomb owner to the estate as portrayed in his tomb	119
13.2	•	119
13.4	Management of estates	123
13.4	Summary	125
SECTION SIX	INTERPRETING THE DATA	_
	RATIONALE	127
CHAPTER 14	RESOURCES OF FOUR ENVIRONMENTS	129
14.1	The four environments exploited by estates	129
14.2	Resources of the desert environment	130
14.3	Resources of the pastoral environment	132
1431	Cattle	122

	14.3.2	'Small Cattle': Sheep	136
	14.3.3	'Small Cattle': Goats	136
	14.3.4	Donkeys	137
	14.4	Resources of the inundated regions of the Nile valley	138
	14.4.1	Cereals	138
	14.4.2	Flax	140
	14.5	Marshland resources	140
	14.5.1	Papyrus	140
	14.5.2	Bird life	141
	14.5.3	C	142
	14.6	Assessment	142
Chapter	15	A CHANGING ENVIRONMENT?	143
	15.1	Change over time	143
	15.2	Modifications in the scenes of work on rural estates	144
	15.3	Presentation of accounts by chiefs of the estate	145
	15.4	Vertical inscriptions	145
	15.5	Other theme changes	145
	15.6	Significance of changes	145
Chapter	16	Conclusions	147
BIBLIO TABLE:			151
	1	Data digest	
	2	Management of desert animals	
	3	Features of desert hunting scenes	
		(a) Animals attacked by hunting dogs or lions	
		(b) Peaceful activities of animals in the desert hunting scenes	
		(c) Hunters	
	4	Cattle crossing water	
	5	Livestock numbers	
	6	Portrayal of flock of sheep	
	7	Management of domestic goats	
	8	Representations of donkeys	
	9	Production of field crops	
	10	Grain storage, bread and beer production	
	11	Titles	
	12 13	Inscriptions accompanying the tomb owner viewing, planting and harvesting field crops	
	13	Resources, fish – fishing methods and management	
	15	Birds – trapping, poultry yards, parades	
	16	Papyrus gathering scenes	
		Papyrus skiffs – construction and use	
	17	Tomb owner viewing the work and produce of his estate	