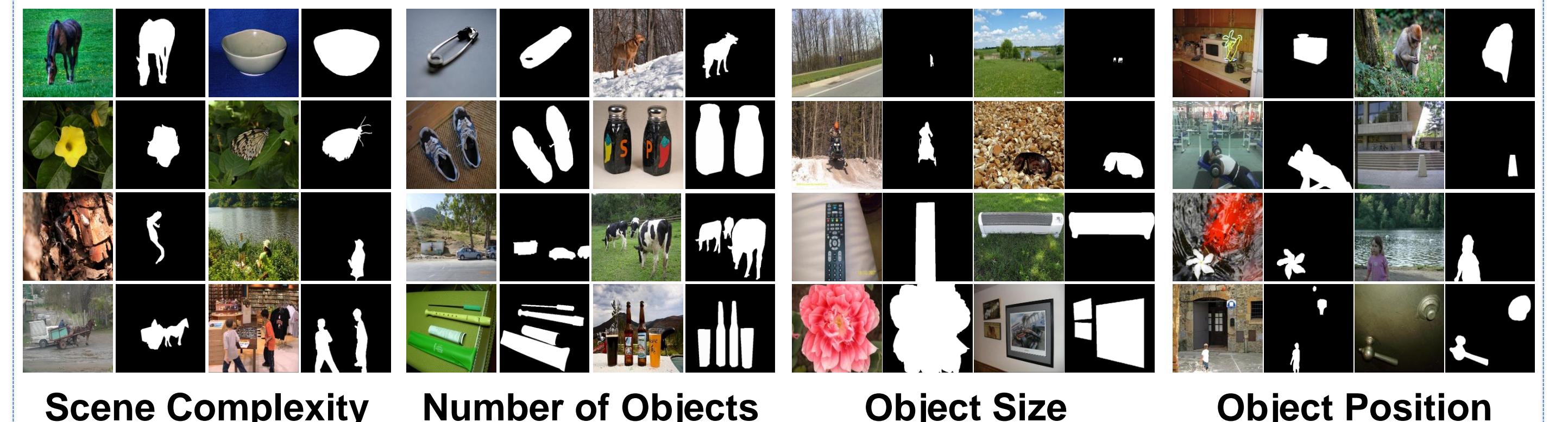


What is and What is Not a Salient Object

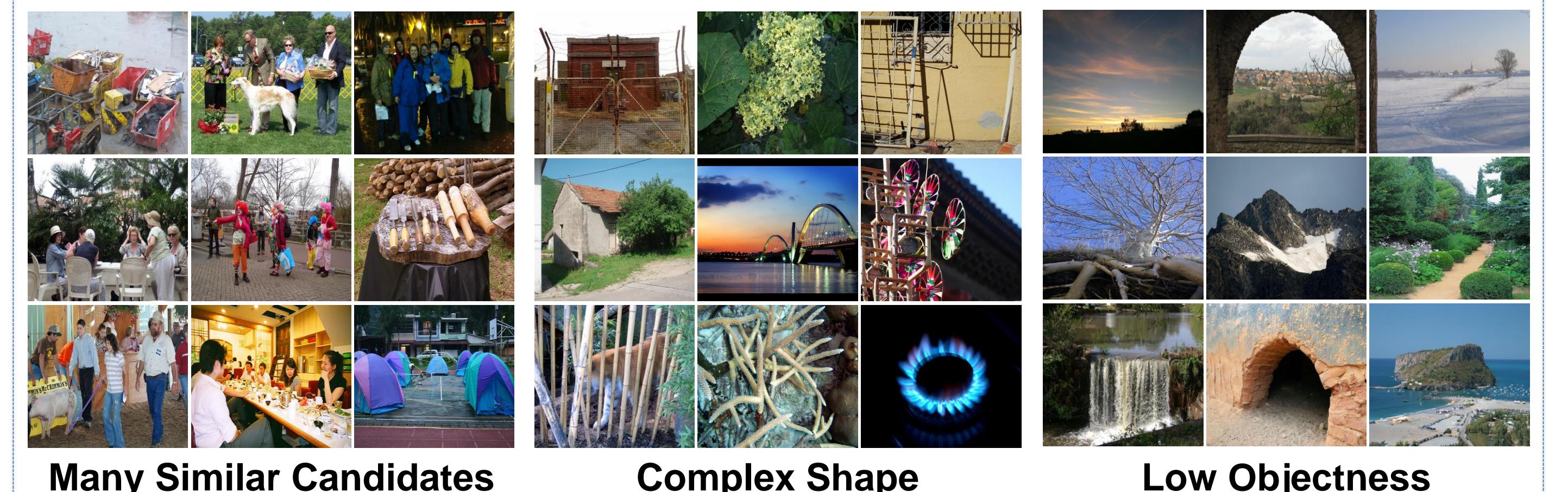
● Perspective

- In complex scenarios salient and non-salient objects may share some visual attributes, making them difficult to be separated.
- Finding what is not a salient object is as important as knowing what is a salient object.
- A good SOD model should encode all probable ways that salient objects differ from non-salient ones and adaptively process all types of scenarios.

● XPIE: What is a Salient Object

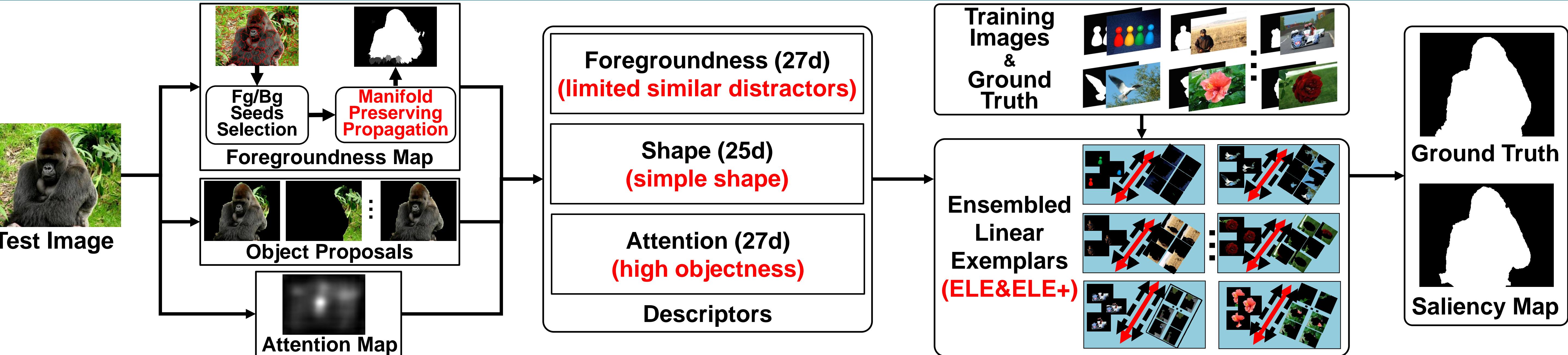


● XPIE: What is Not a Salient Object



- A salient object should have a **limited similar distractors**, **relatively clear and simple shape** and **high objectness**.

The Proposed Method



Experiment & Results

Dataset	Metric	GS	DSR	MR	DRFI	RBD	MBS	BSCA	BL	MST	ELE	ELE+
SED1	MAE	0.176	0.160	0.153	0.164	0.143	0.172	0.154	0.185	0.134	0.105	0.108
	FM	0.751	0.803	0.820	0.817	0.803	0.805	0.819	0.808	0.804	0.849	0.854
	wFM	0.571	0.616	0.626	0.598	0.652	0.579	0.611	0.555	0.697	0.773	0.767
PASCAL-S	MAE	0.221	0.205	0.221	0.219	0.199	0.220	0.222	0.247	0.184	0.161	0.159
	FM	0.601	0.628	0.619	0.666	0.639	0.642	0.640	0.632	0.660	0.692	0.710
	wFM	0.414	0.420	0.416	0.418	0.449	0.366	0.432	0.400	0.527	0.576	0.581
ECSSD	MAE	0.255	0.226	0.237	0.239	0.225	0.245	0.233	0.262	0.208	0.183	0.183
	FM	0.624	0.687	0.697	0.717	0.679	0.668	0.697	0.691	0.688	0.740	0.749
	wFM	0.435	0.490	0.478	0.472	0.490	0.432	0.495	0.449	0.578	0.619	0.650
MSRA-B	MAE	0.144	0.119	0.127	0.139	0.110	0.140	0.130	0.171	0.094	0.069	0.071
	FM	0.754	0.795	0.826	0.828	0.811	0.801	0.809	0.807	0.812	0.853	0.861
	wFM	0.563	0.629	0.613	0.570	0.650	0.548	0.601	0.520	0.725	0.797	0.795
THUR15K	MAE	0.176	0.142	0.178	0.167	0.150	0.159	0.182	0.220	0.141	0.121	0.111
	FM	0.518	0.579	0.586	0.615	0.566	0.595	0.574	0.575	0.607	0.630	0.654
	wFM	0.370	0.422	0.378	0.399	0.421	0.366	0.387	0.341	0.499	0.549	0.567
XPIE	MAE	0.181	0.155	0.177	0.160	0.149	0.162	0.181	0.213	0.146	0.128	0.121
	FM	0.612	0.655	0.672	0.698	0.665	0.670	0.658	0.653	0.675	0.701	0.722
	wFM	0.435	0.476	0.451	0.478	0.503	0.515	0.455	0.407	0.560	0.603	0.611

Quantitative results. The best three results are shown in red, blue, and green, respectively.

- ELE and ELE+ outperform 9 state-of-the-art methods on 6 benchmark datasets and achieve the lowest MAE and the highest adaptive F-measure (FM) and weighted F-measure (wFM).

