



# QUERY ARTICULATION

Not Generic CBIR...

But Query Specific Strategies!

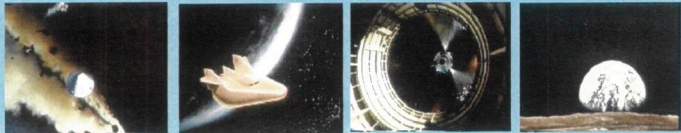
## QBE Jupiter

Example Image



**Problem:**  
The distinctive characteristics of Jupiter disappear in the global aspects modelled by the feature vectors...

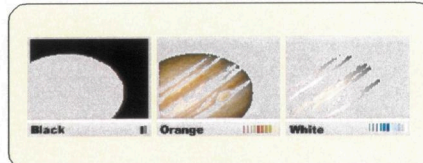
Jupiter Results



## Articulated Jupiter

Characteristics

- 3 Colors
- Typical (Striped) Layout



Example Image



Colorset Selection

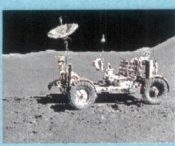
Colorset Transition Ranking

Results



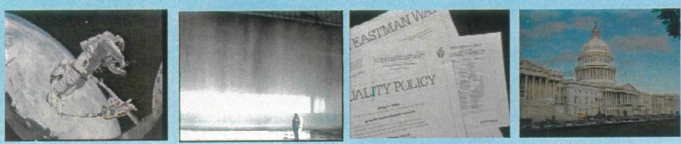
## QBE Lunar Rover

Example Image



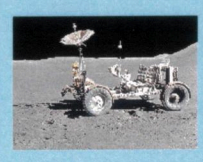
**Problem:**  
The colors in the examples differ significantly from the matching items in the dataset...

Lunar-Rover Results



## Articulated Lunar Rover

Example Image



Filter: Black-Sky

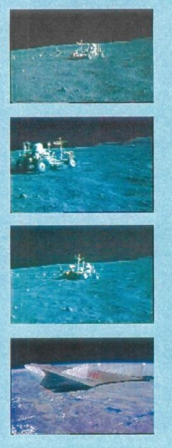
Filter: Non-Black Bottom

- Characteristics
- Black Sky
  - Lunar Surface

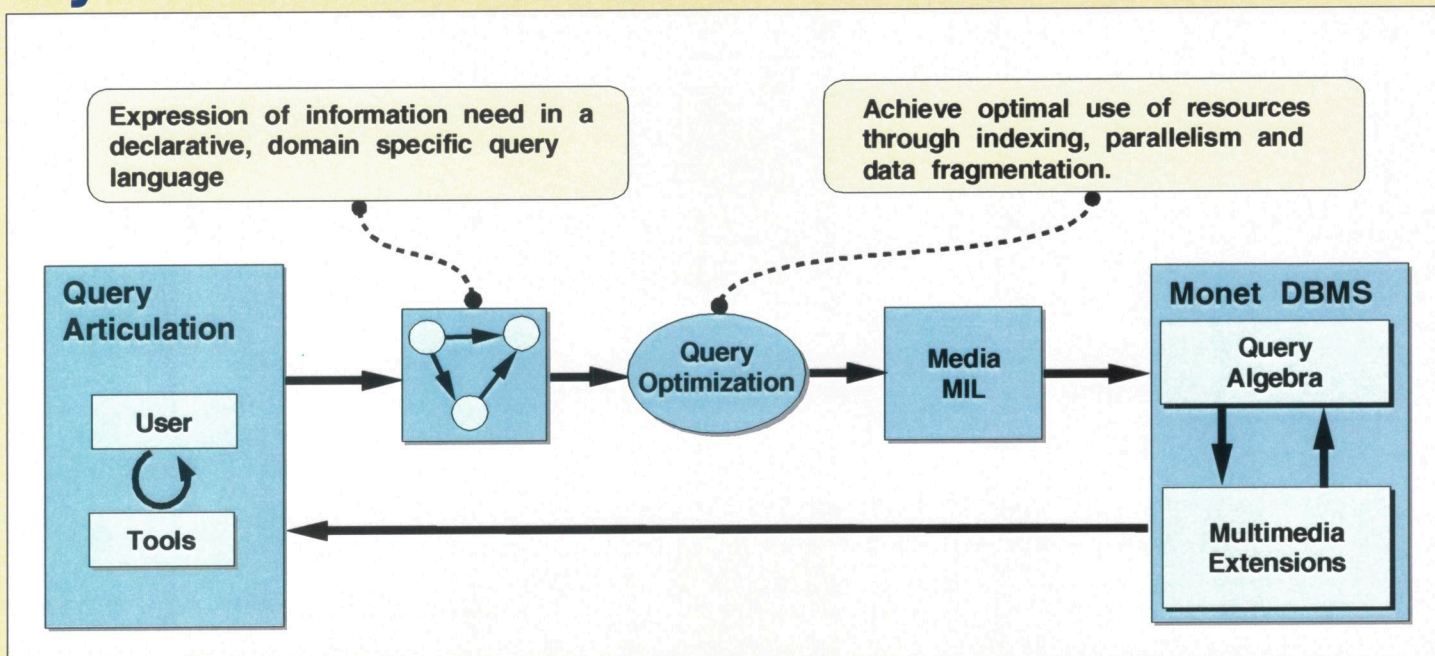
```
Skies :=
[crop] (keyframes,
  box(0,0,1,0.25));
Bperc :=
[freq] (Skies,black);
return join(keyframes,
  Bperc.select(>,80));
```

```
Grounds :=
[crop] (bSkyImages,
  box(0,.5,1,1));
Bperc :=
[freq] (Grounds,black);
return semjoin(
  bSkyImages,
  Bperc.select(<,80));
```

Results



## System Architecture



## Contact

Arjen.de.Vries@cw.nl  
Alex.van.Ballegooij@cw.nl  
J.A.List@cw.nl

Centre for Mathematics and Computer Science (CWI),  
INS1, Data Mining and Knowledge Discovery

Kruislaan 413  
P.O.Box 94079  
1090GB Amsterdam  
The Netherlands

This research received funding from the ICES/KIS MIA project and the Dutch Telematics Institute project DRUID.