

4.1. Flächengruppen (Forts.)

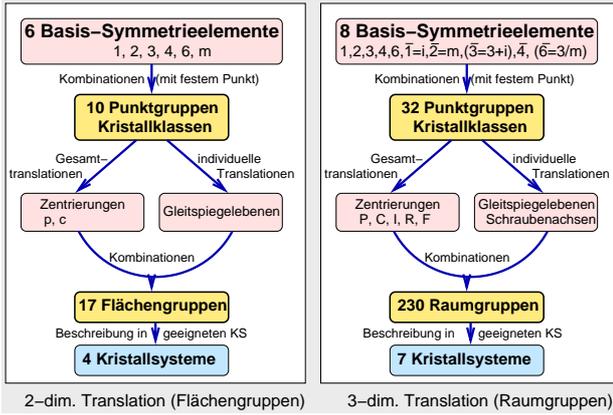
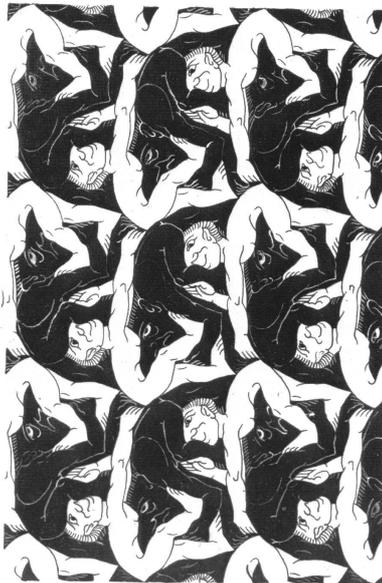


Tabelle der Flächengruppen

Punktgruppe	Flächengruppen	Koordinatensystem
1	p1	schiefwinklig ($a \neq b; \gamma$ beliebig)
2	p2	
1m1	pm, pg, cm	rechtwinklig ($a \neq b; \gamma = 90^\circ$)
2mm	pmm2, pmg2, pgg2, cmm2	
411	p4	quadratisch ($a = b; \gamma = 90^\circ$)
4mm	p4mm, p4gm	
311	p3	hexagonal $a = b; \gamma = 120^\circ$
3m1	p3m1, p31m	
611	p6	
6mm	p6mm	

Beispiele Flächengruppen

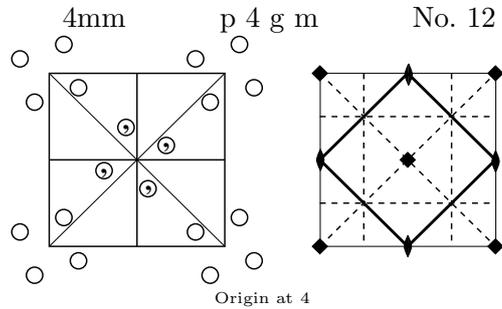
Flächengruppe pg



Flächengruppe p4gm

Auszug aus den *International Tables*

Square



Number of positions, Wyckoff notation, and point symmetry

8 d

1 $x, y; y, \bar{x}; \frac{1}{2} - x, \frac{1}{2} + y; \frac{1}{2} - y, \frac{1}{2} - x; \bar{x}, \bar{y}; x, \frac{1}{2} + y; \frac{1}{2} - y; \frac{1}{2} + y, \frac{1}{2} - x.$

Conditions limiting possible reflections

General:
hk: No conditions
h0: $h=2n$ ($0k: k=2n$)
hh: No conditions

4 c

m $x, \frac{1}{2} + x; \bar{x}, \frac{1}{2} - x; \frac{1}{2} + x, \bar{x}; \frac{1}{2} - x, x;$

Special: as above, plus no extra conditions

2 b

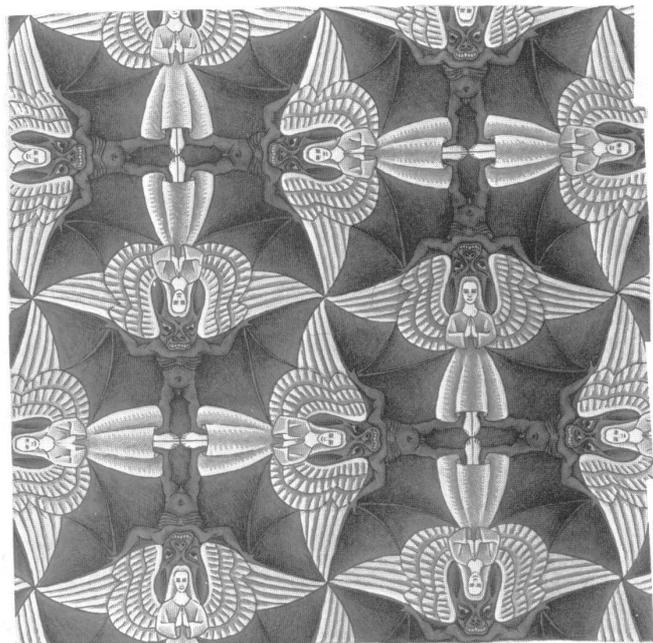
mm $\frac{1}{2}, 0; 0, \frac{1}{2}$

hk: $h+k=2n$

2 a

4 $0, 0; \frac{1}{2}, \frac{1}{2}$

hk: $h+k=2n$



Beispiel p4gm

M.C. Escher: "Engel und Teufel" (1941)