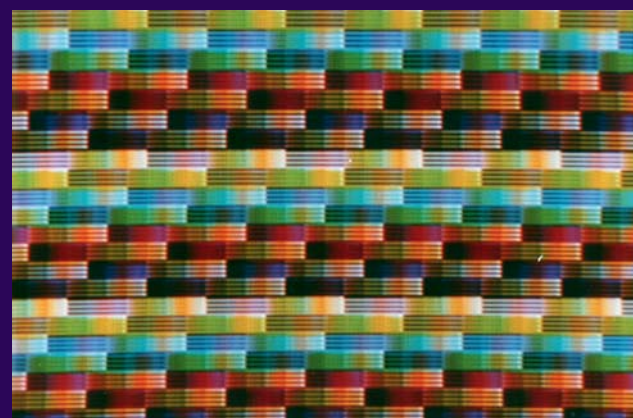
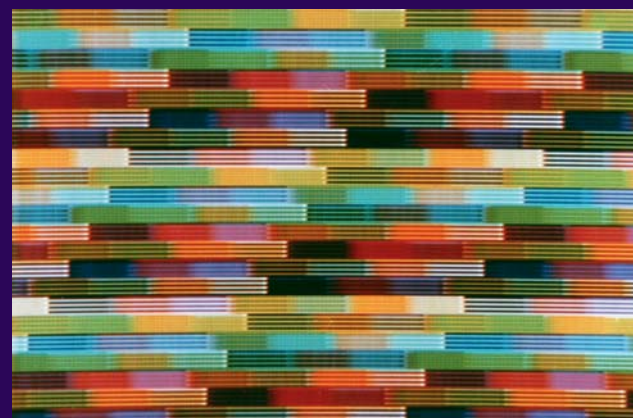
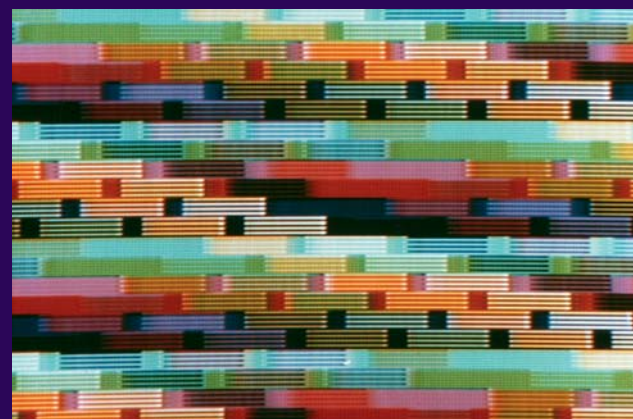
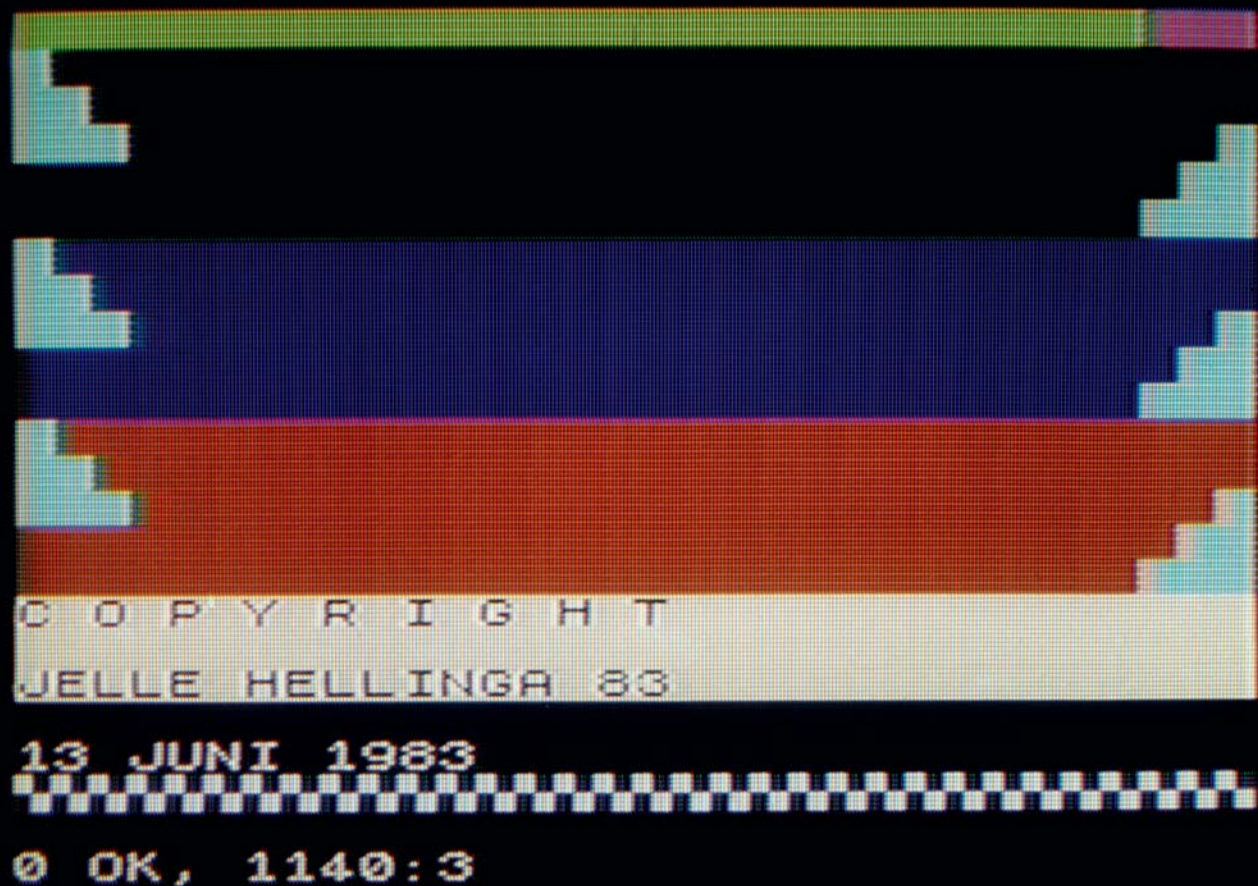


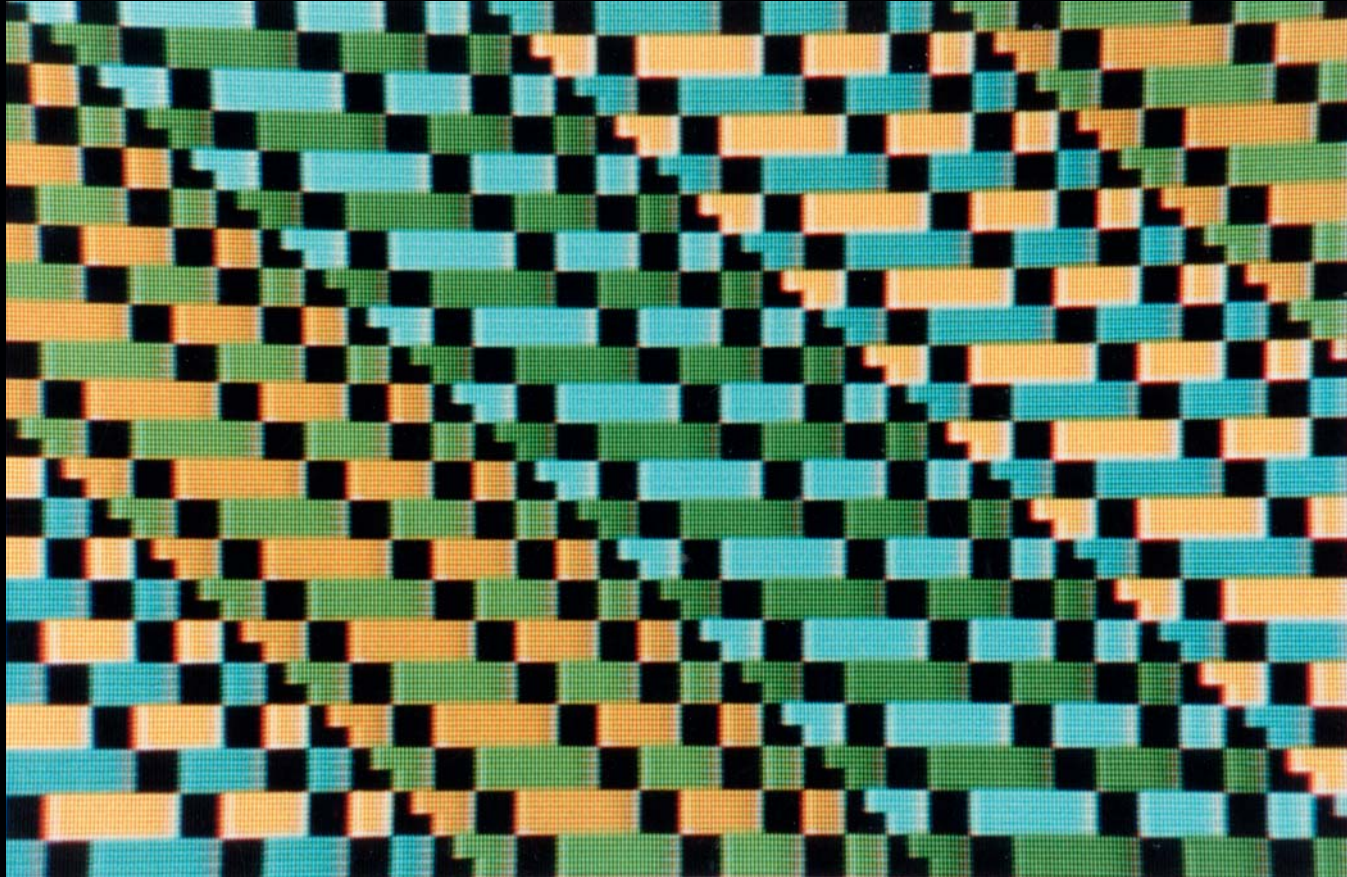
Jelle Hellinga

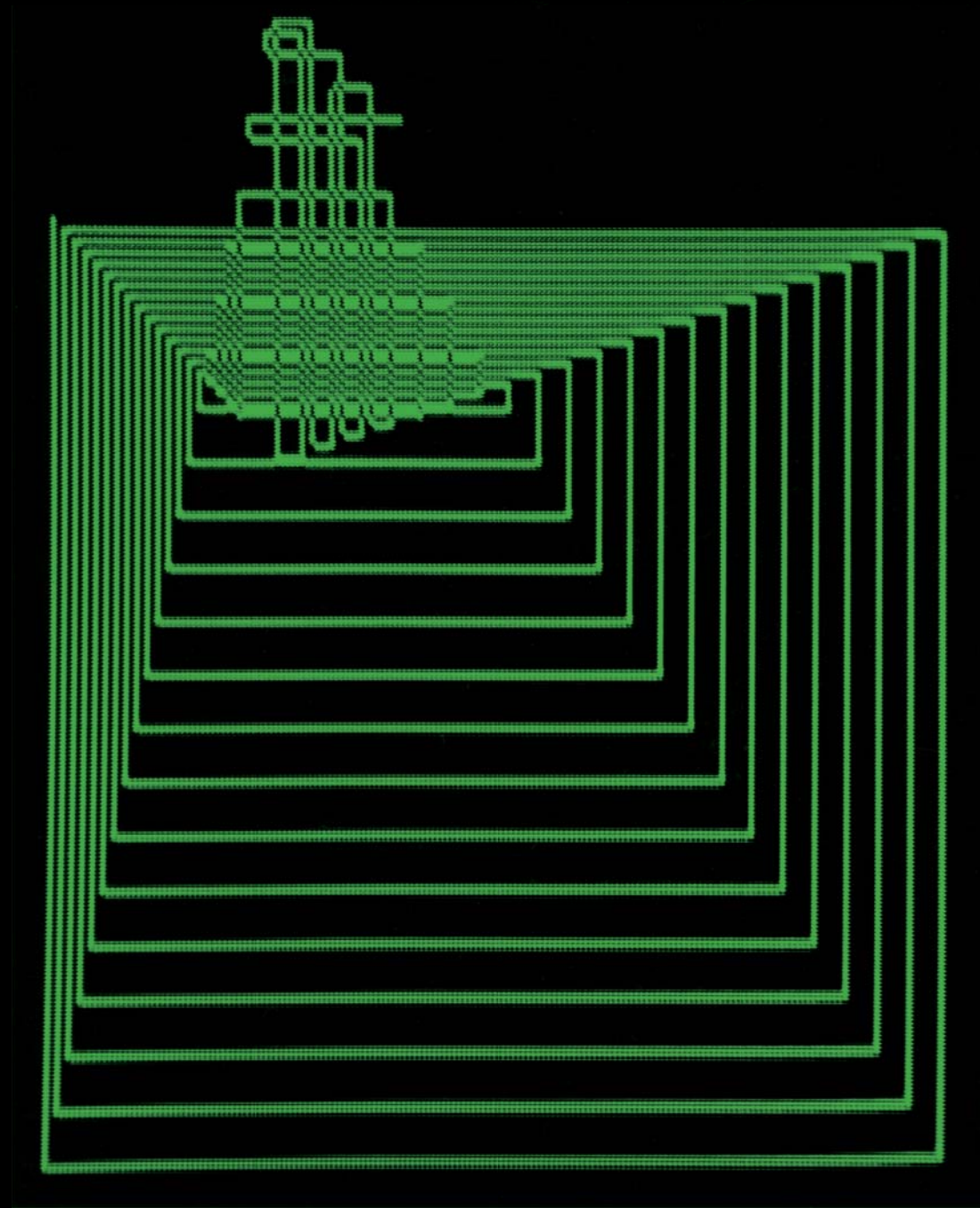
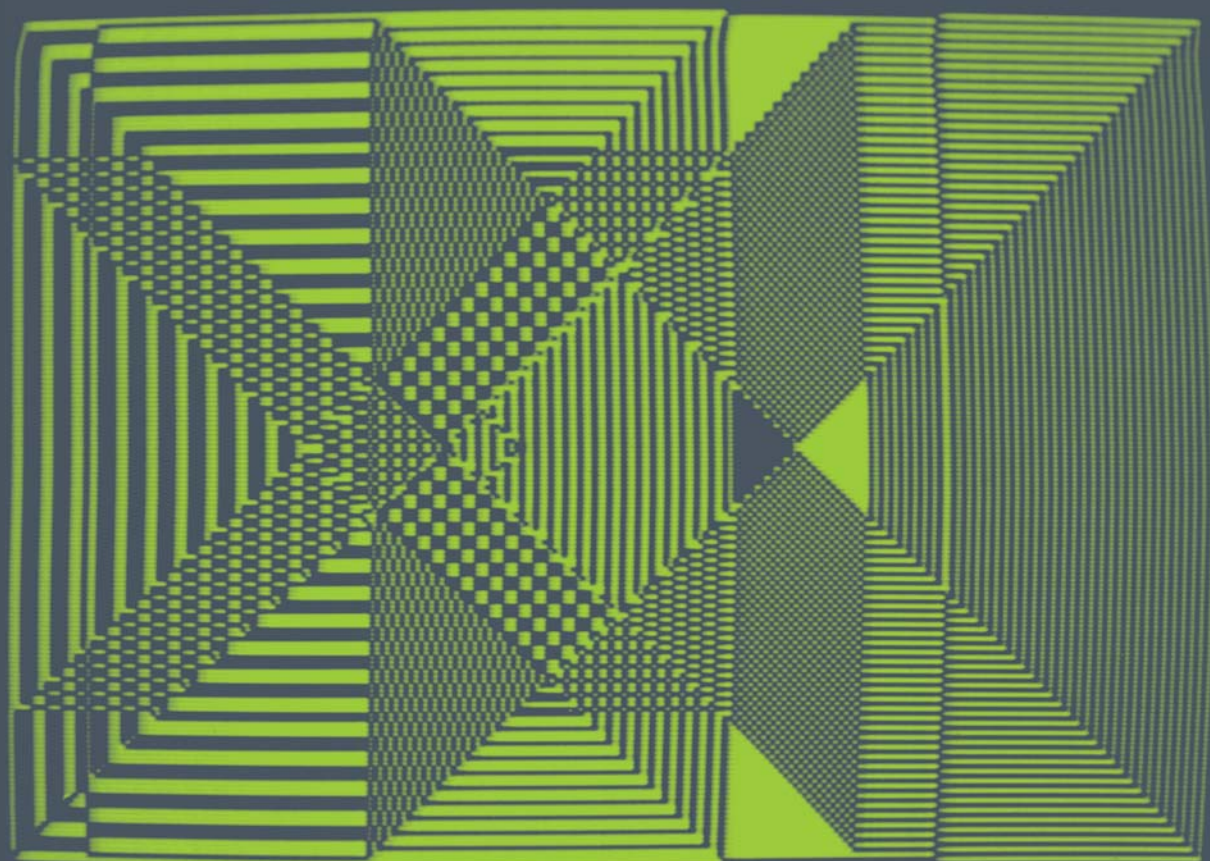
ZX Spectrum Amiga Mac

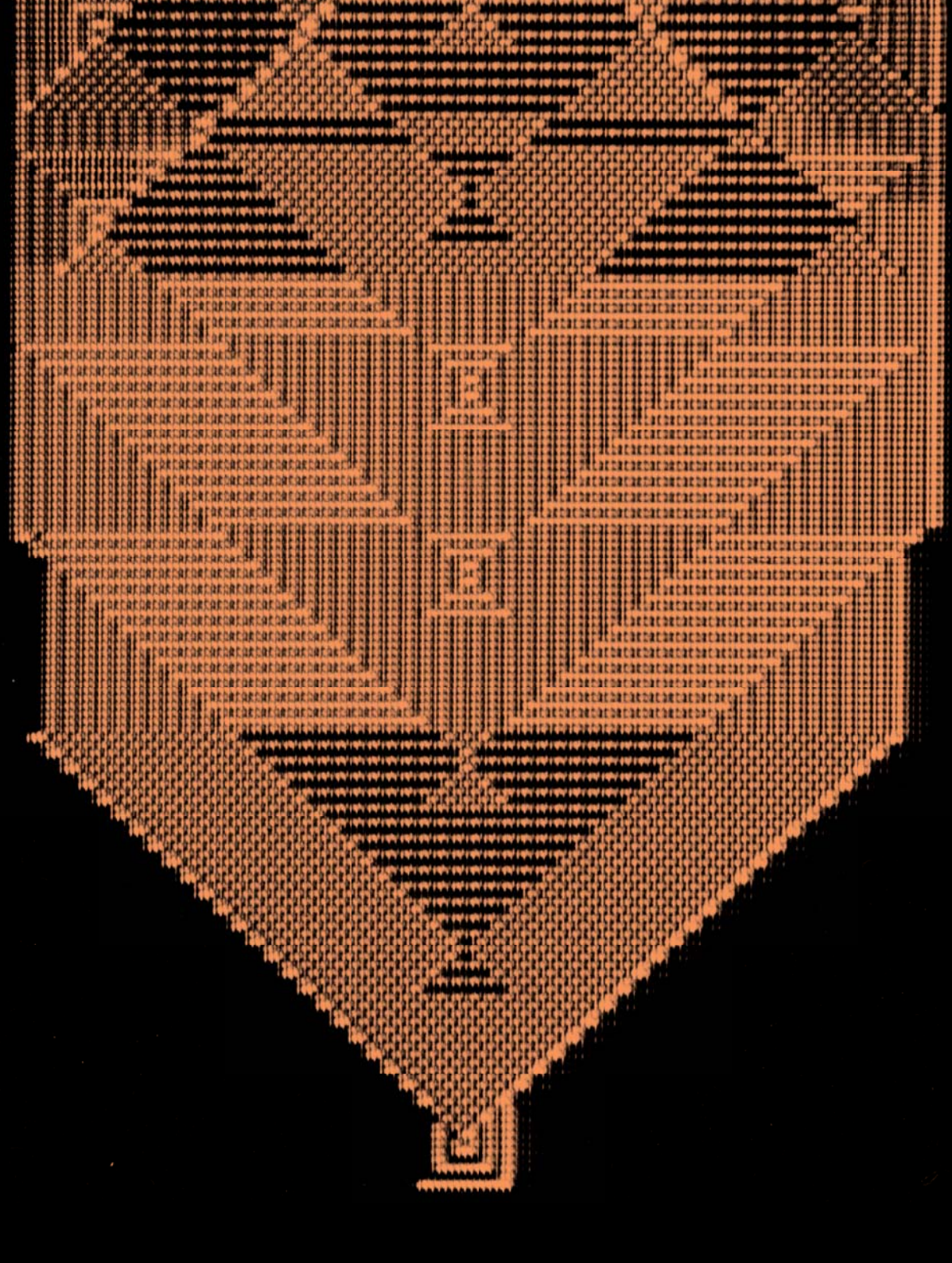
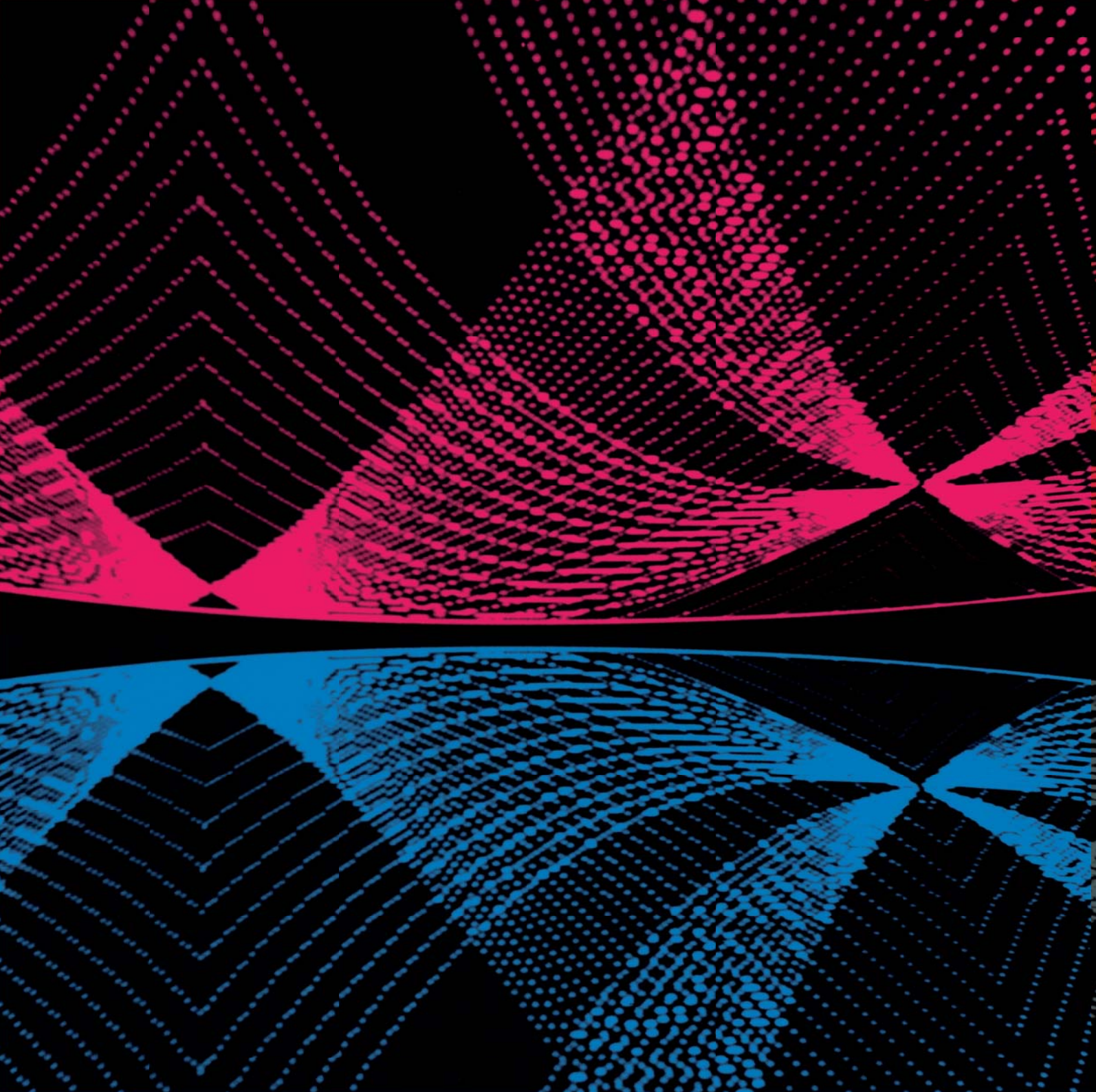
Een visuele geschiedenis vanaf juni 1983

ZX Spectrum Amiga Mac

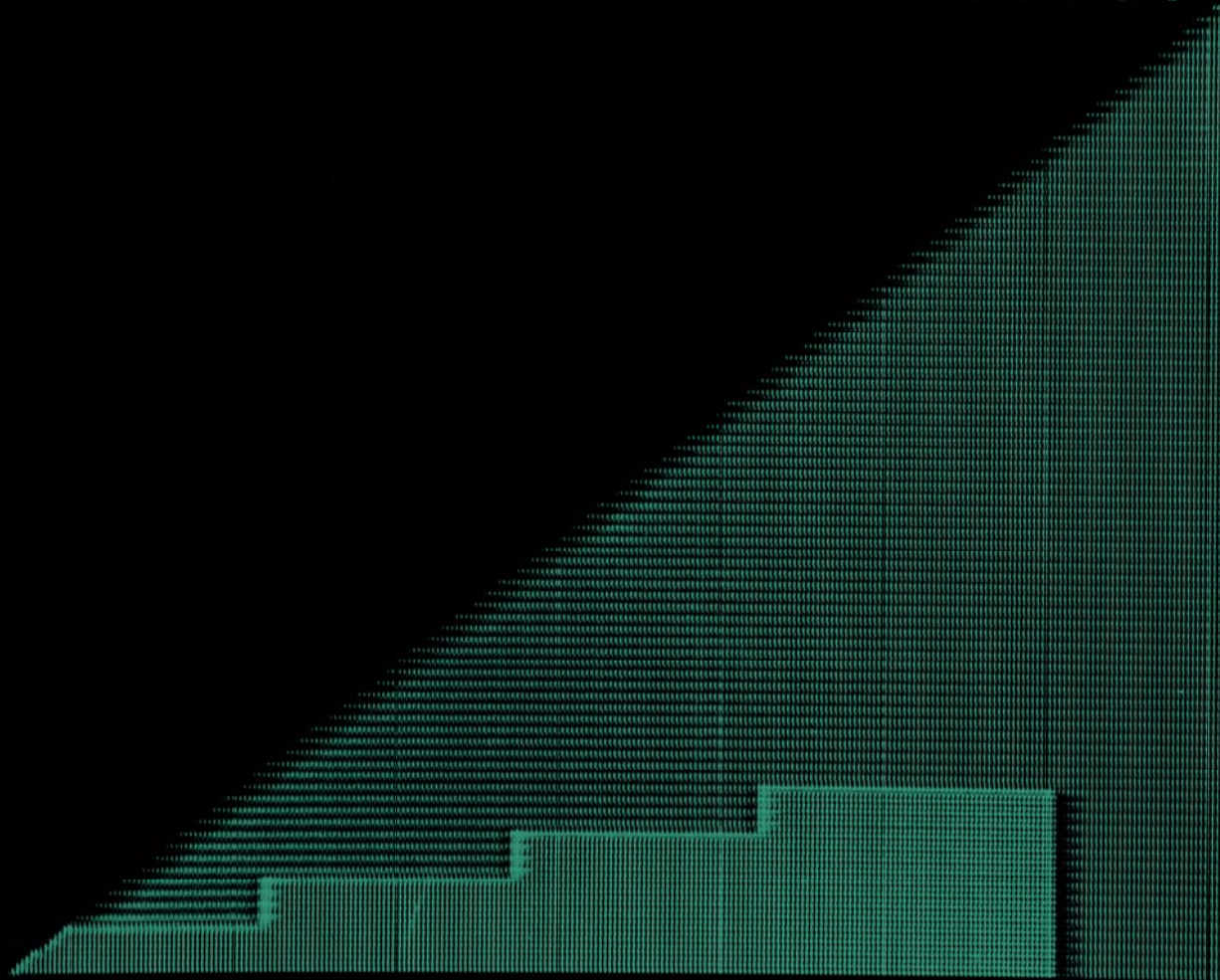




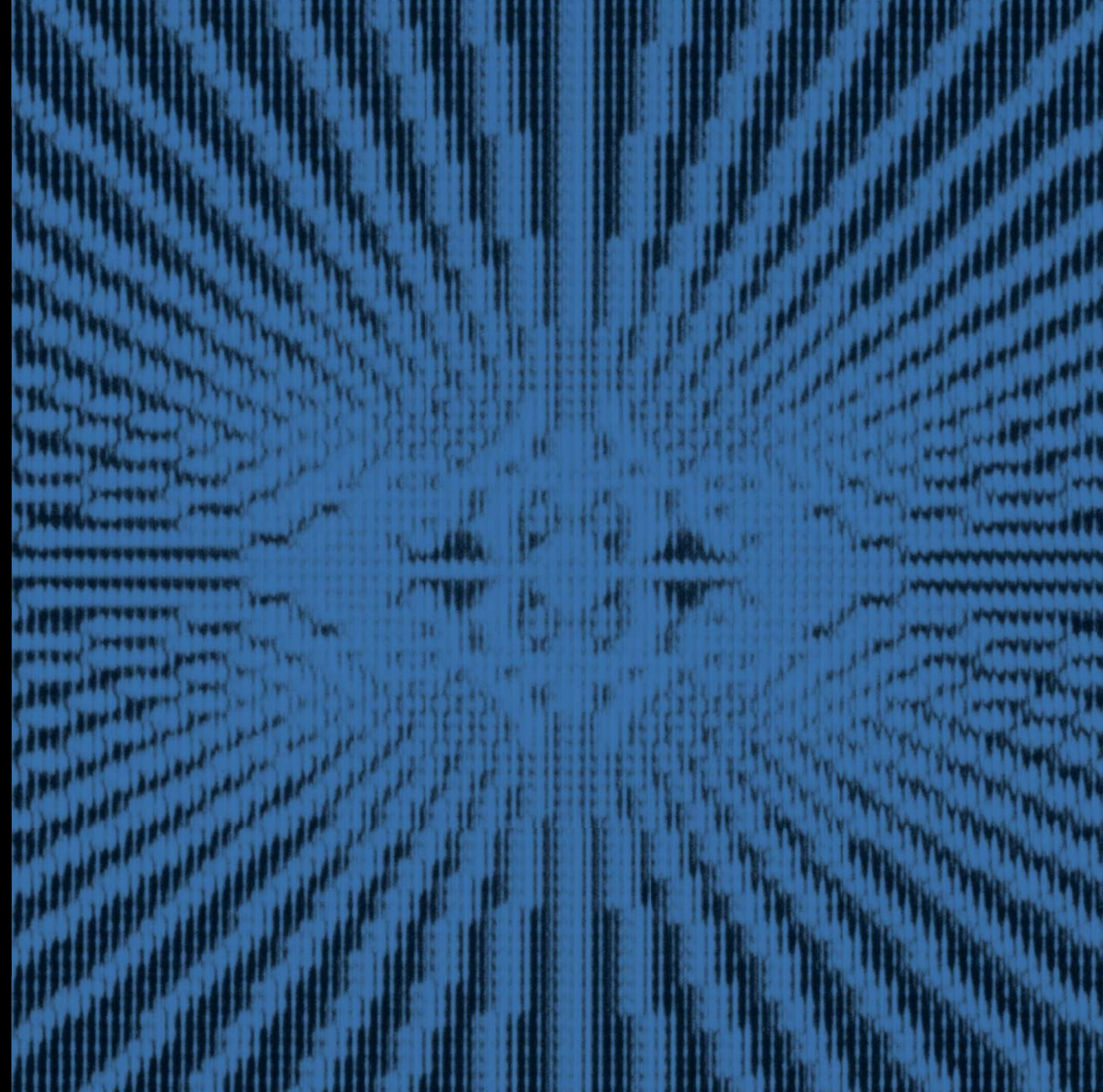


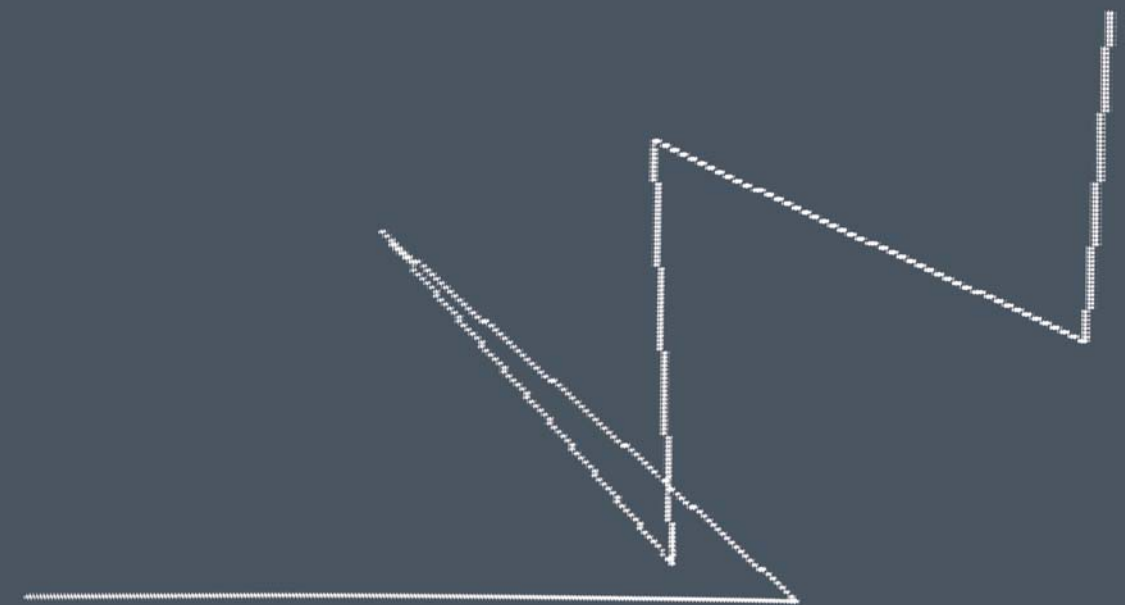
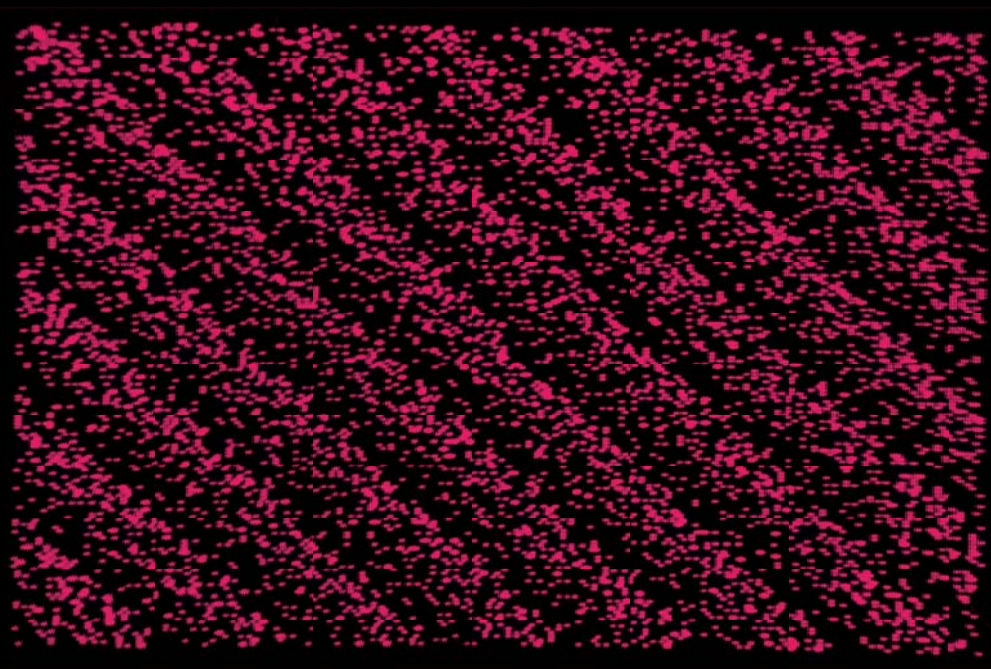
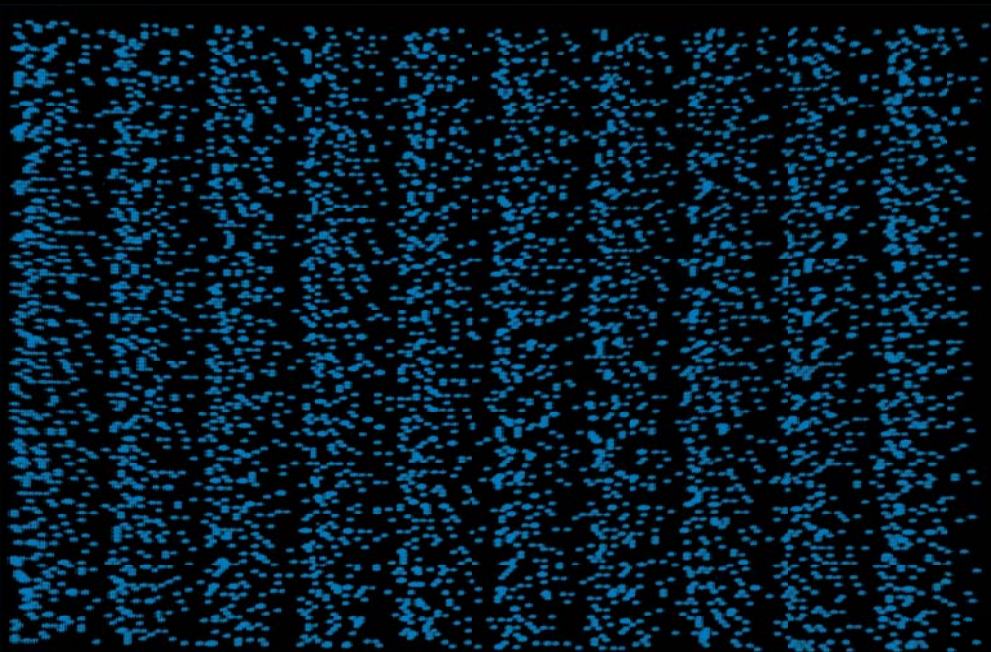


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L BREAK into program, 381:2

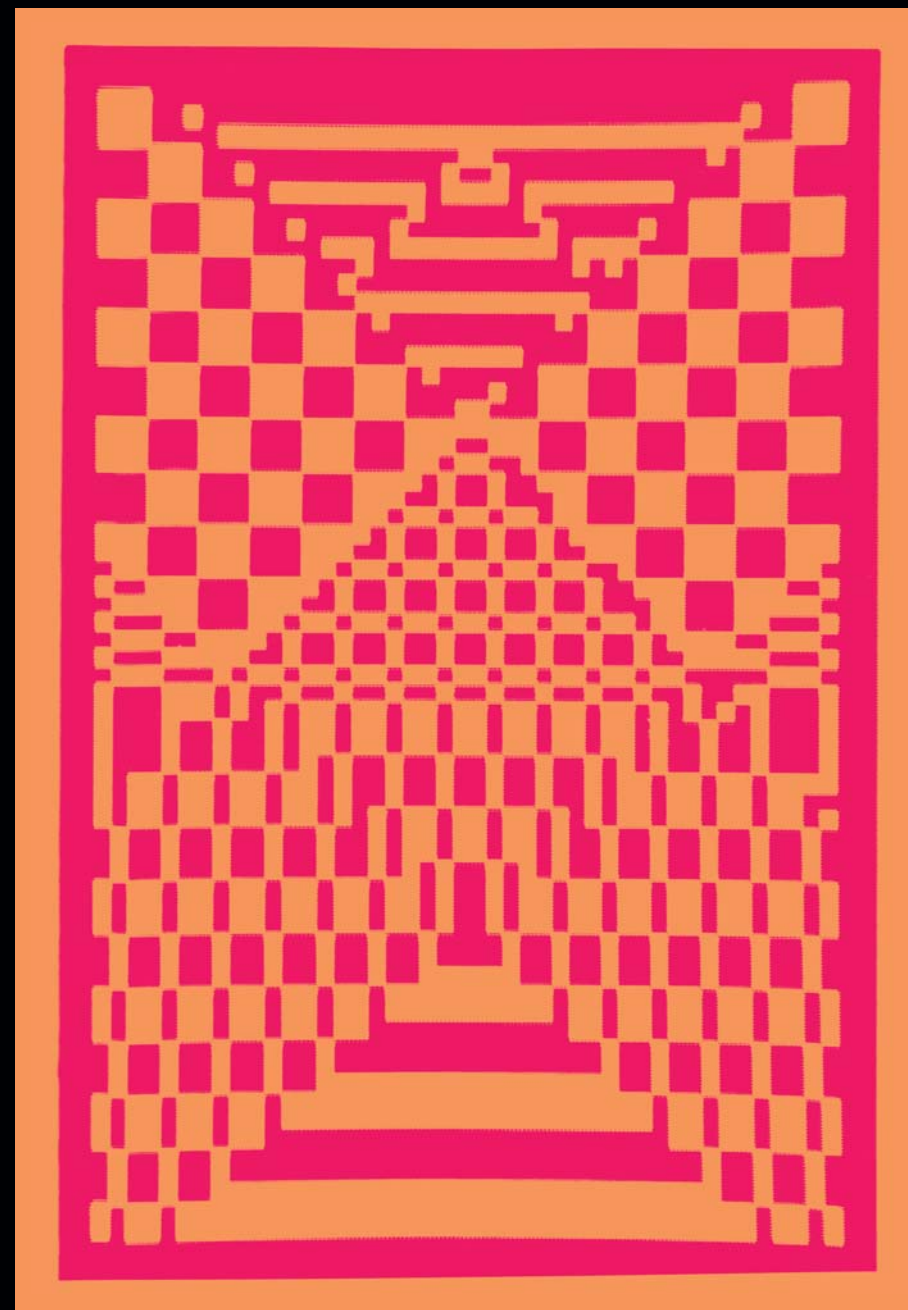
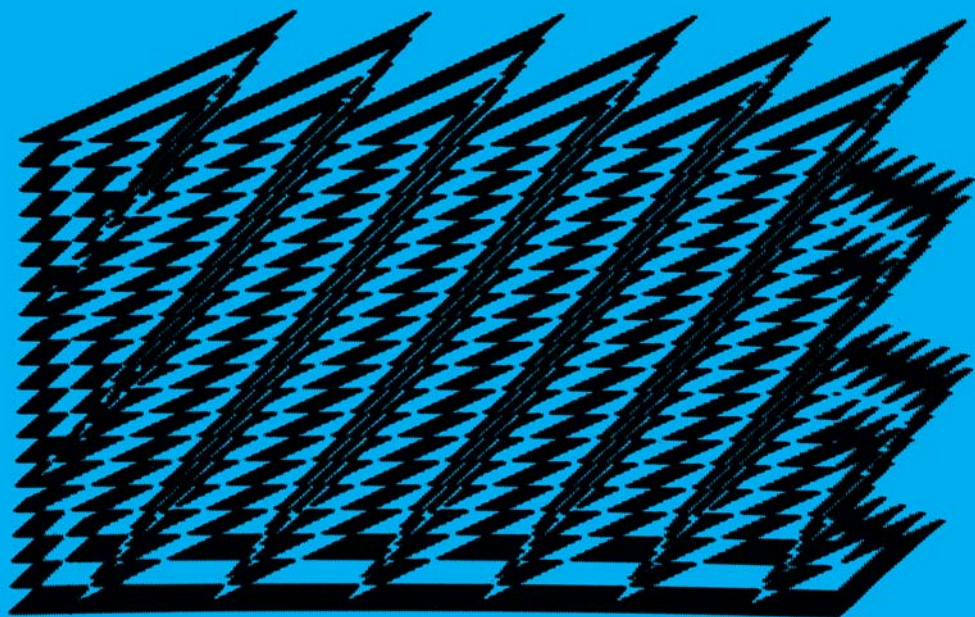


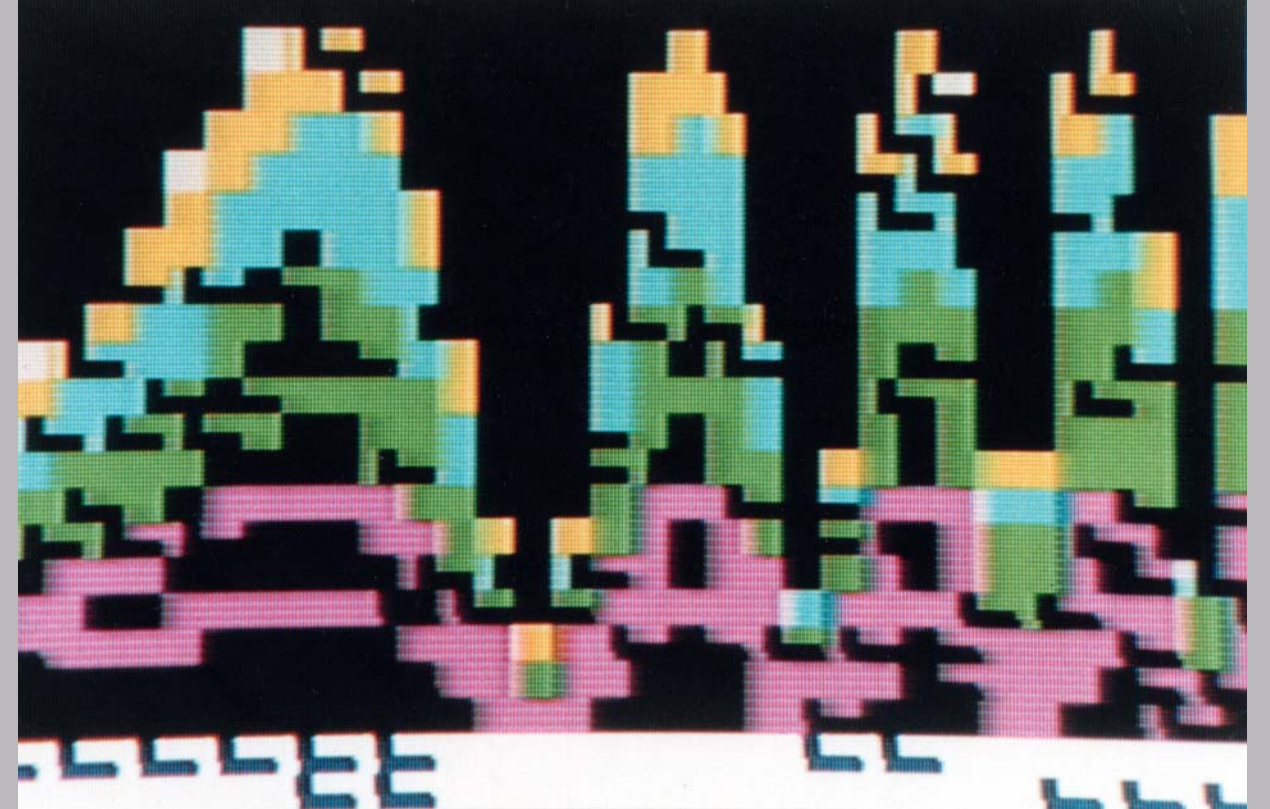
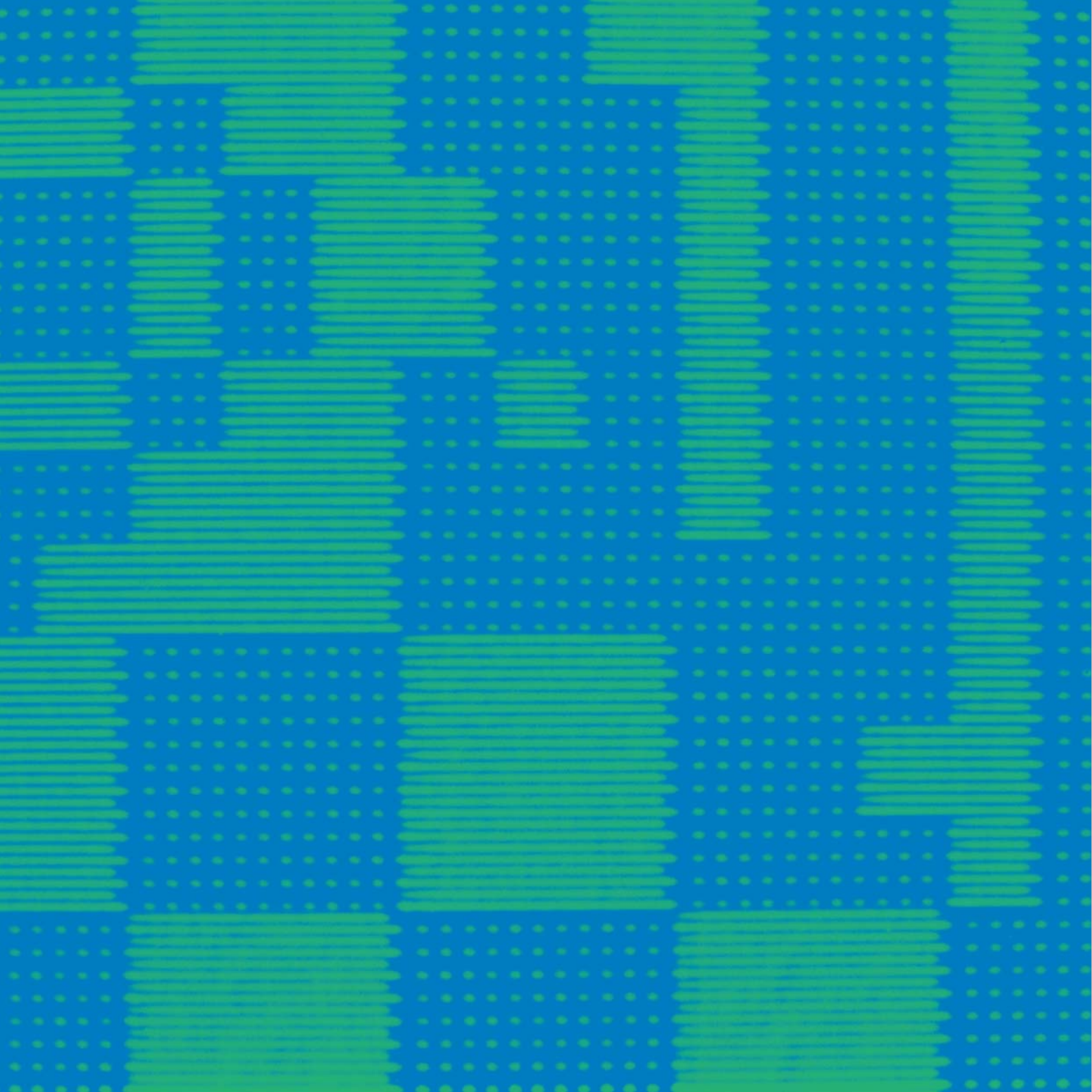


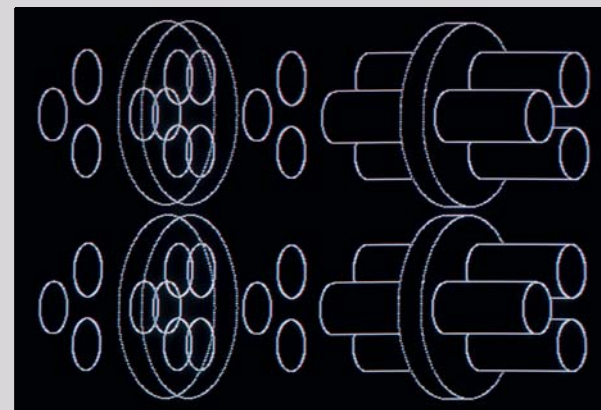
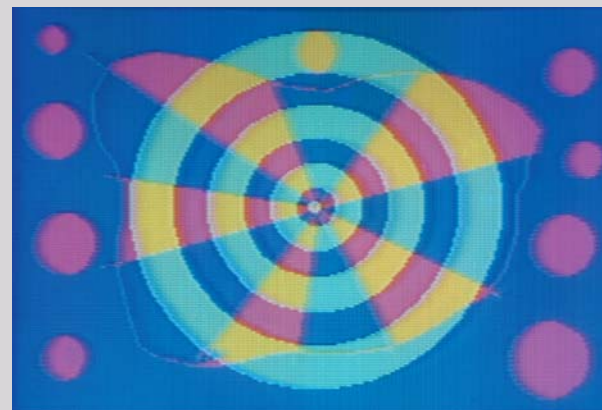
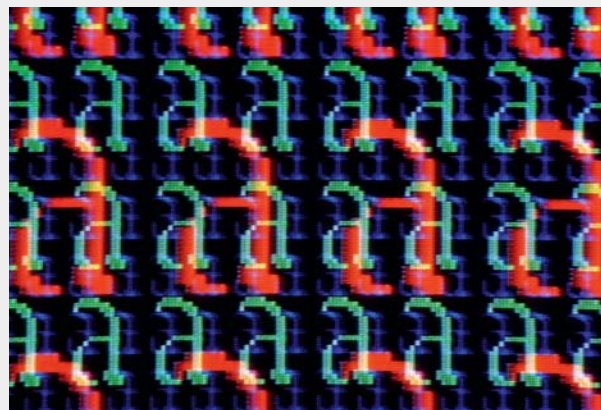
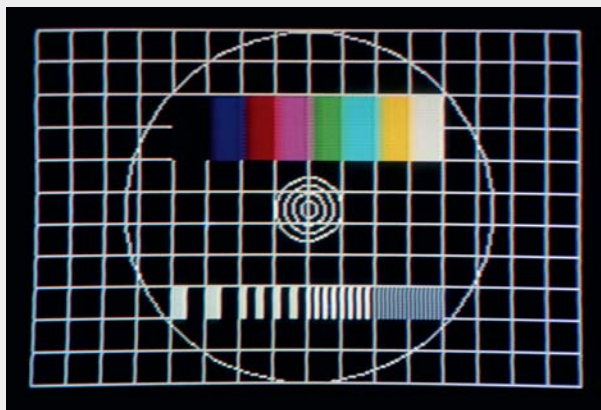
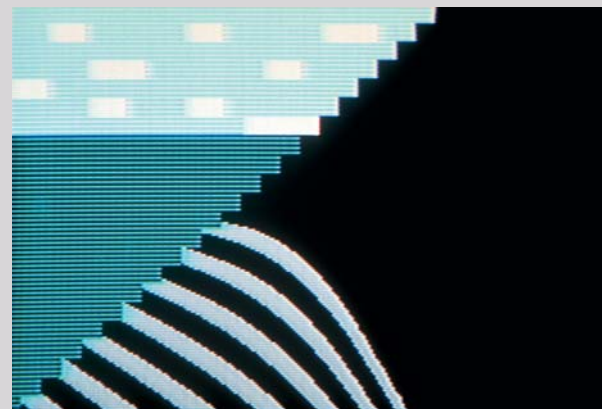
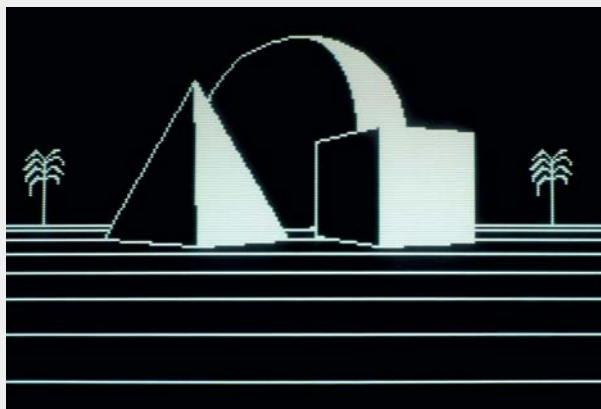
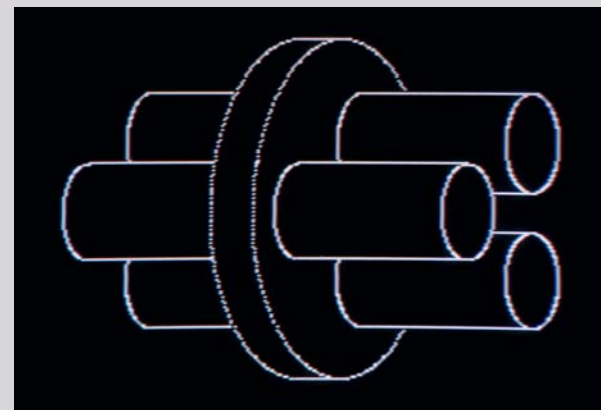
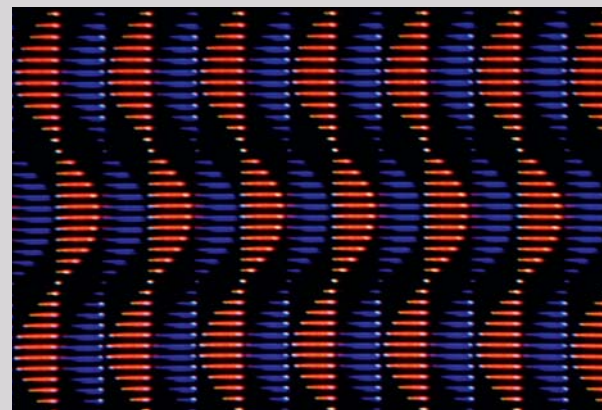
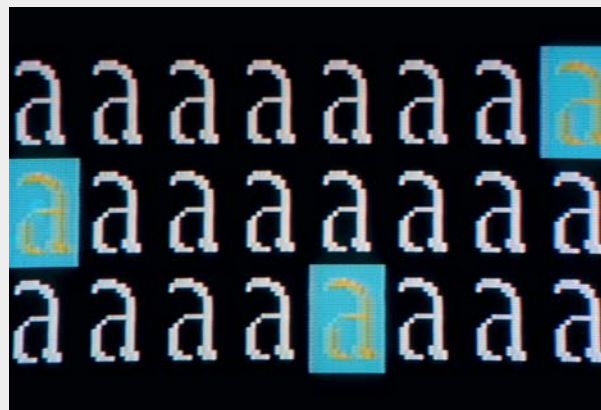
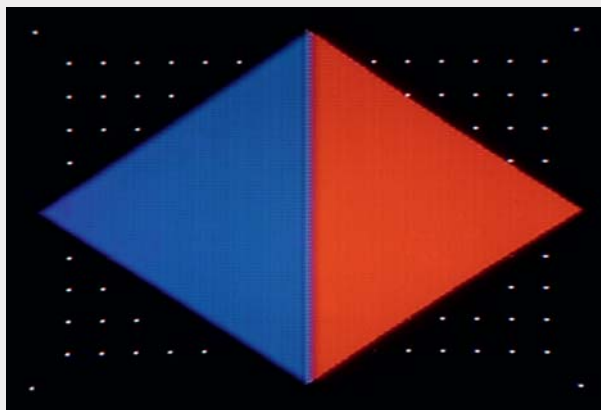
L BREAK into program, 171:1

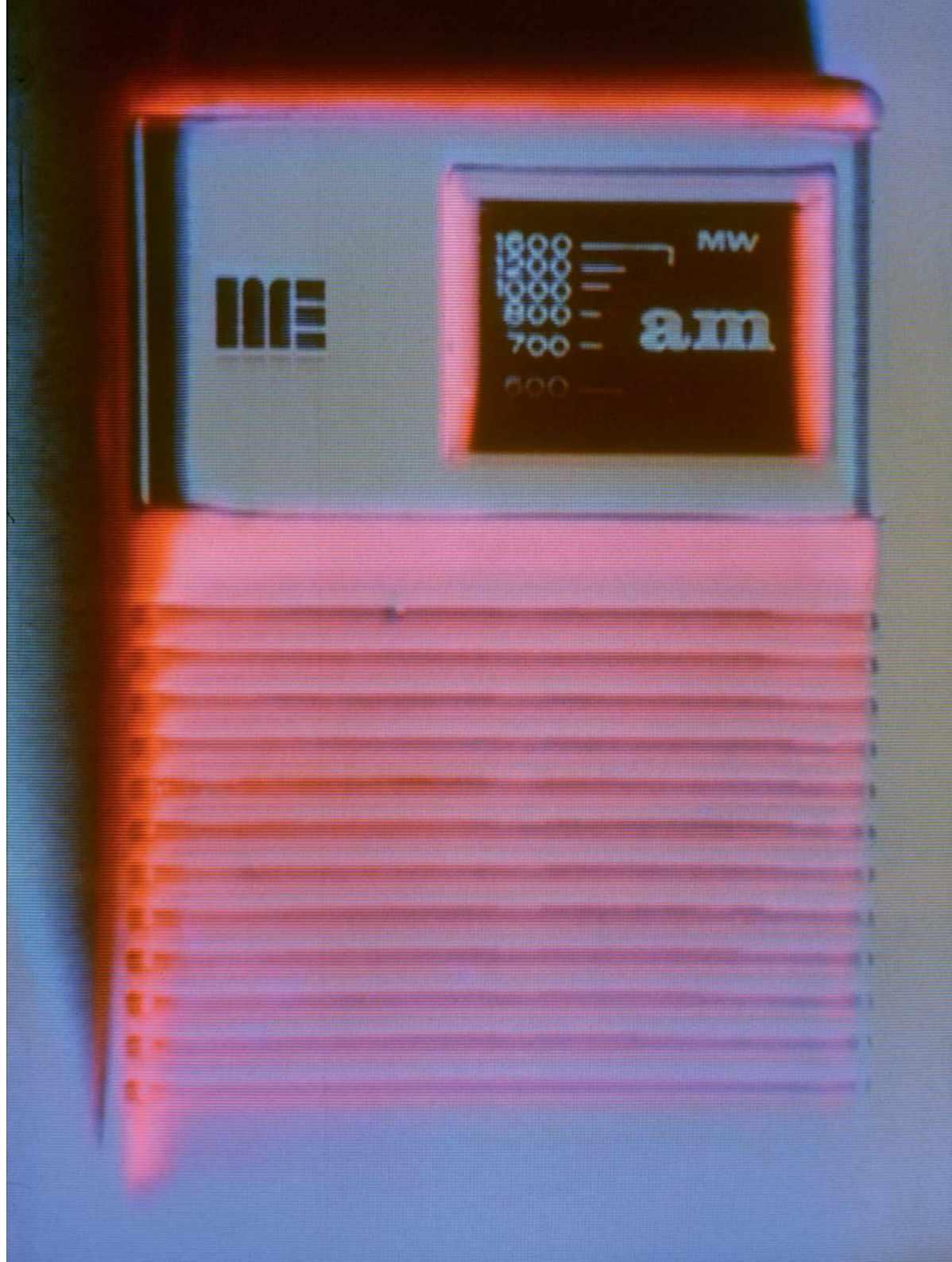


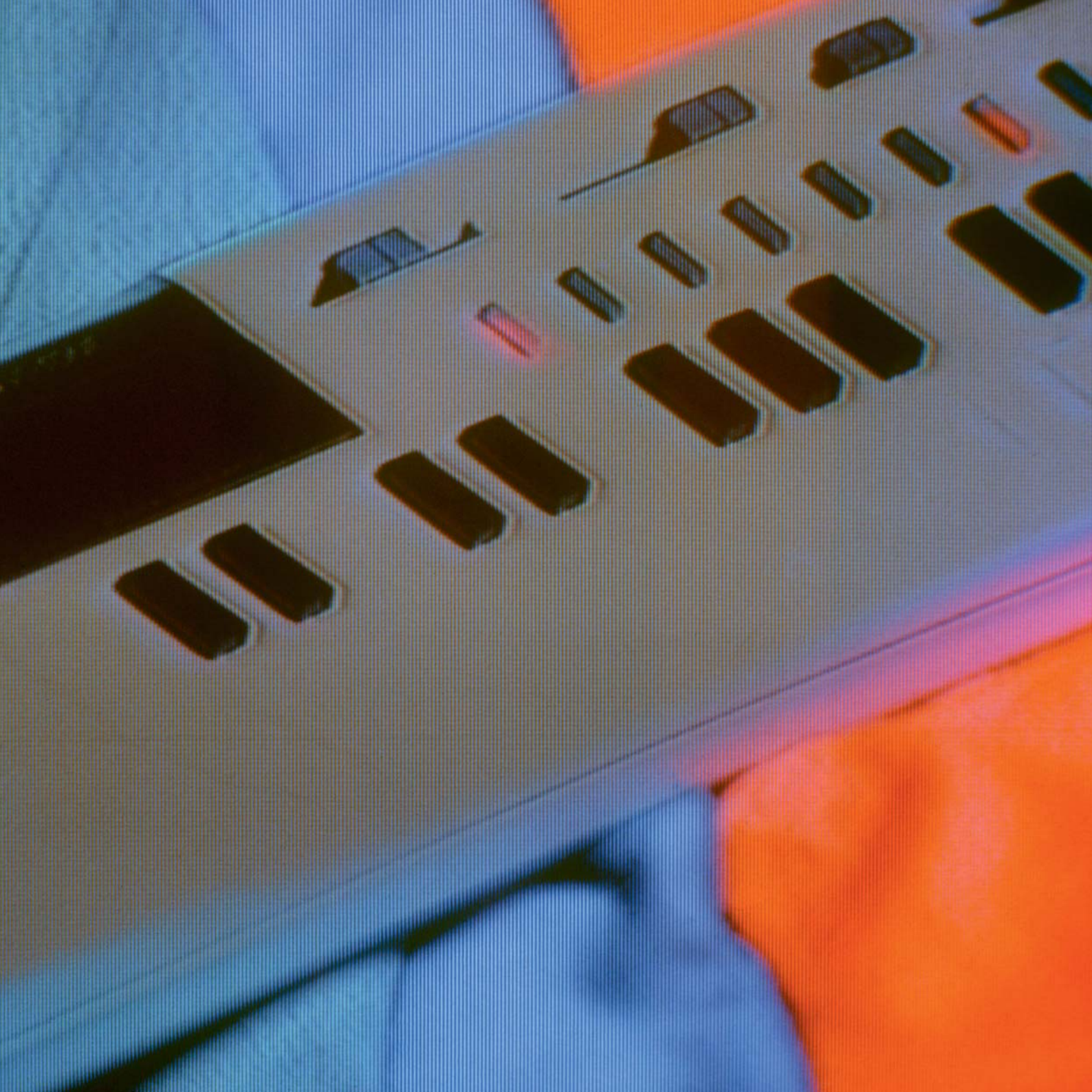
L BREAK into program, 171:1



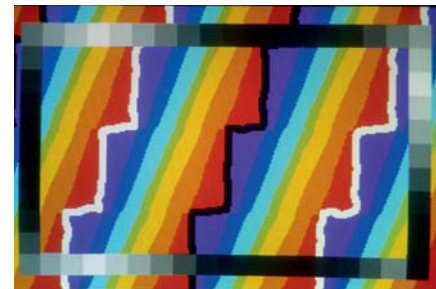
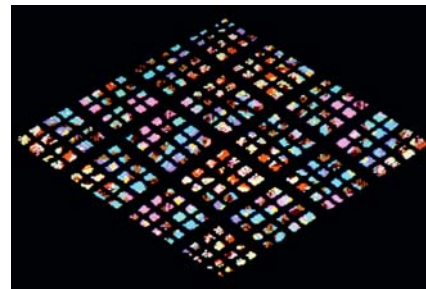
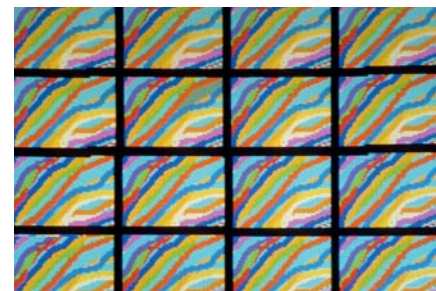
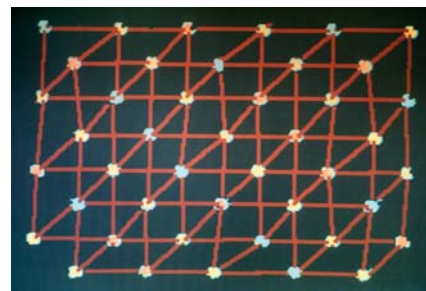
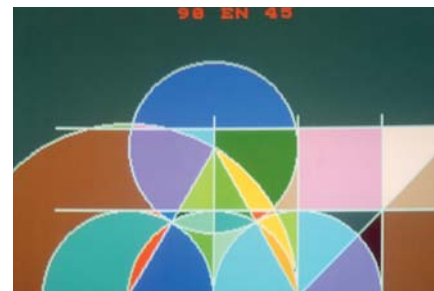
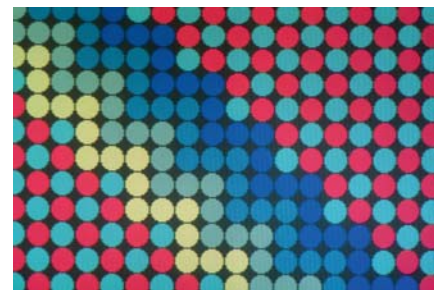
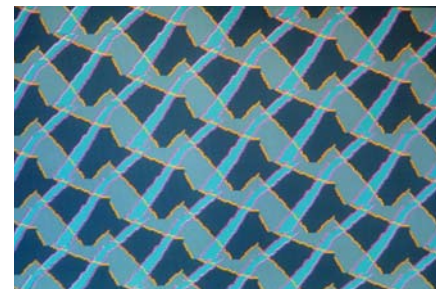
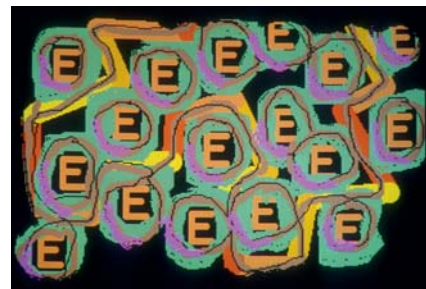
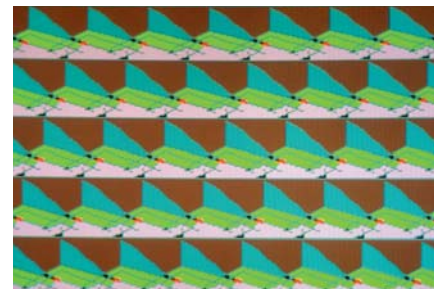
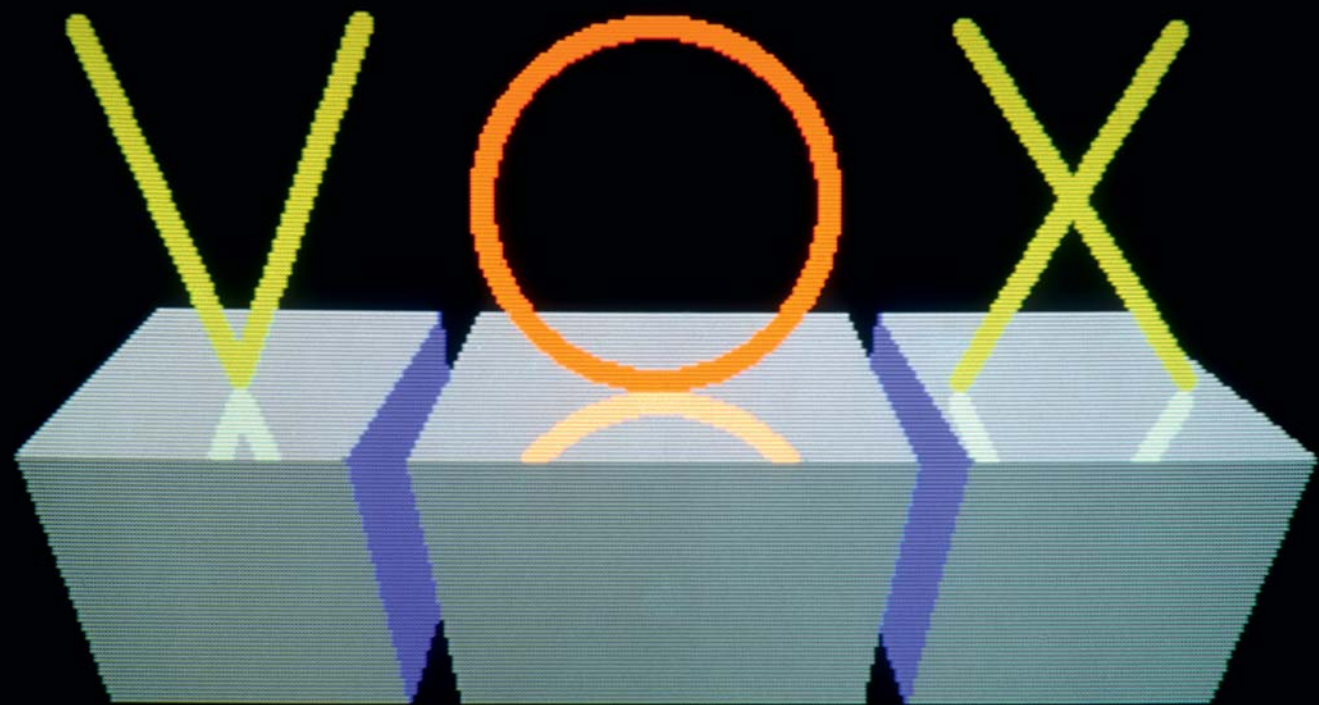


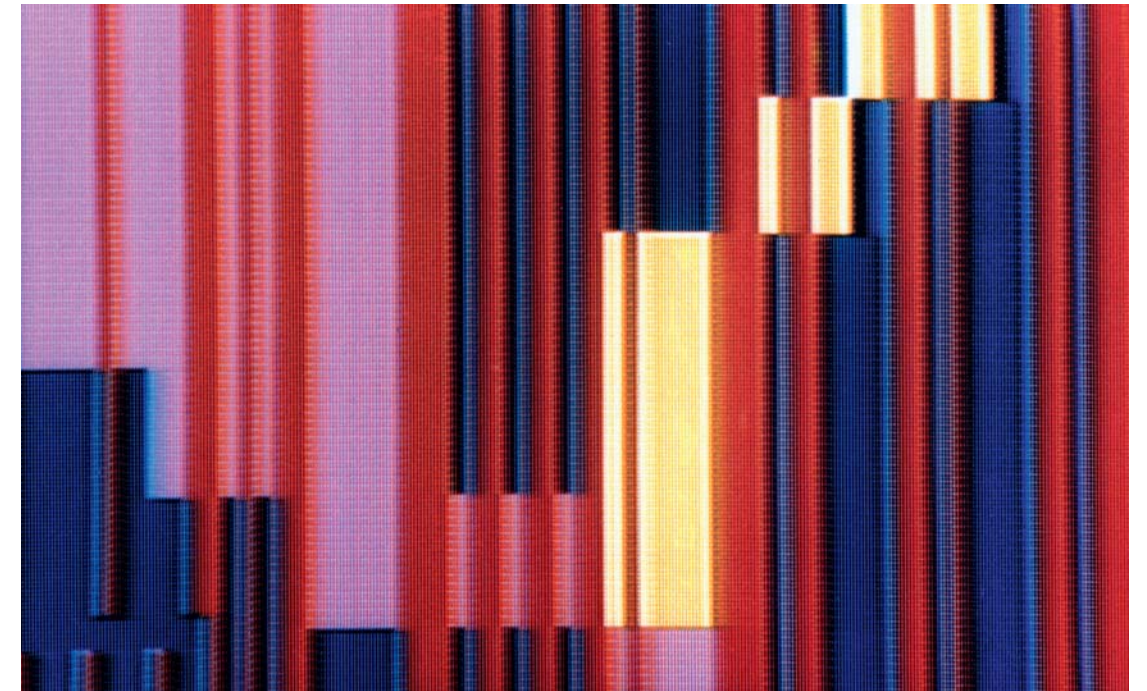
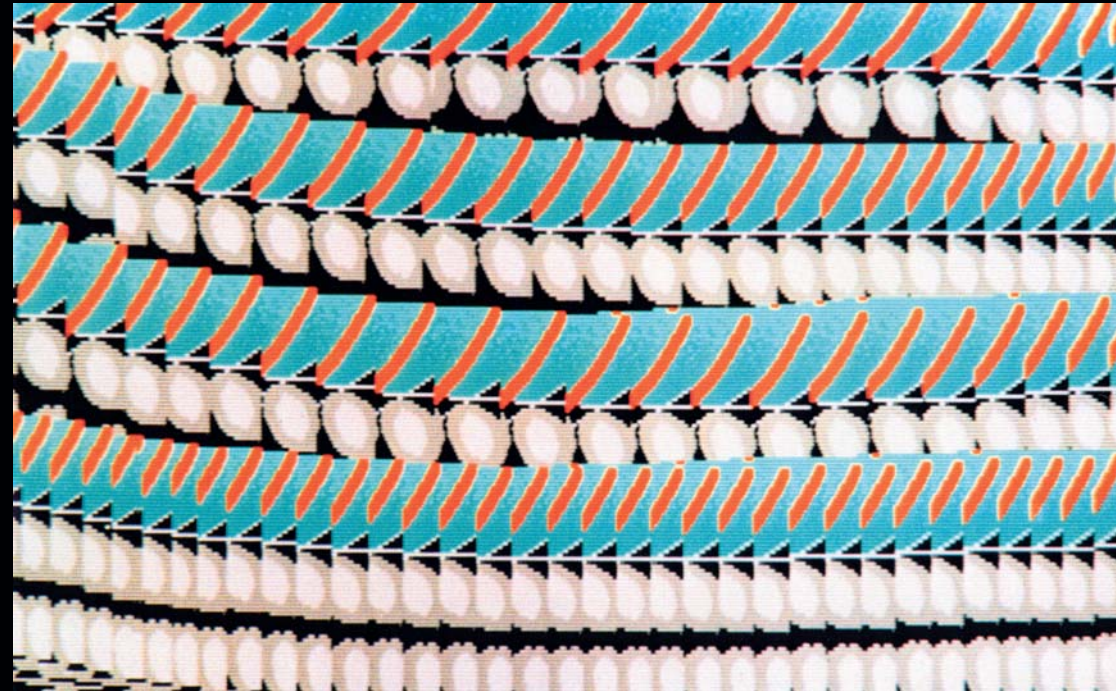
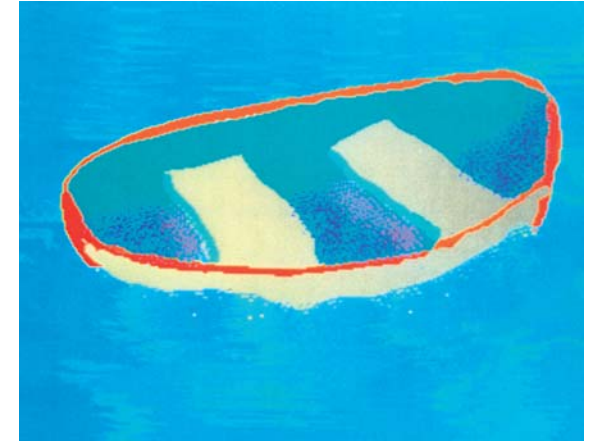
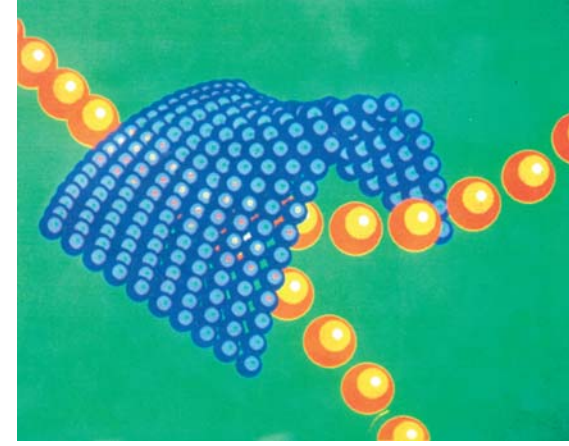
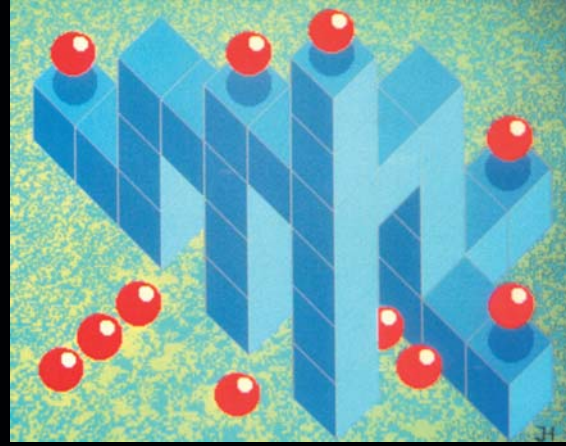


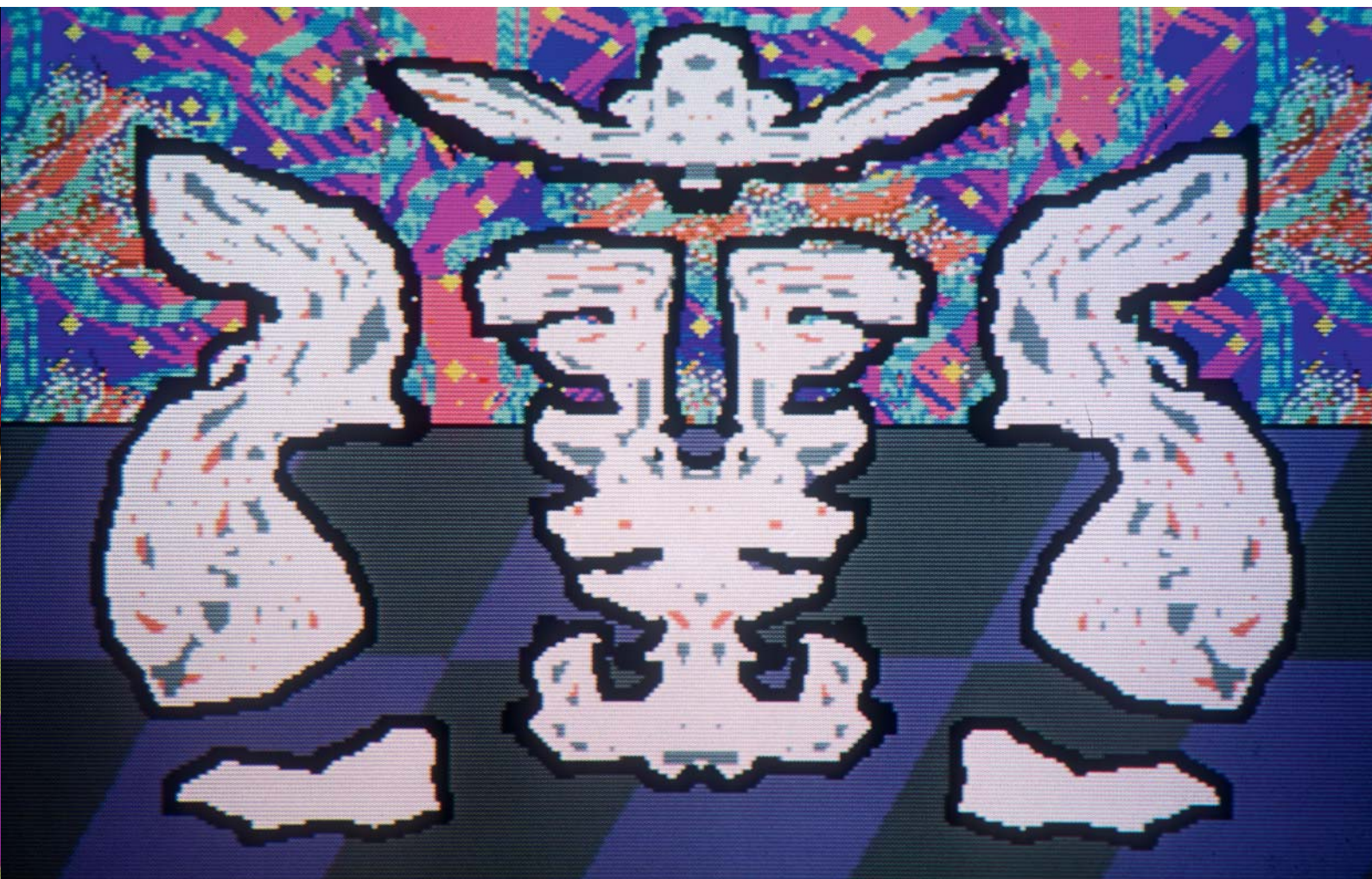




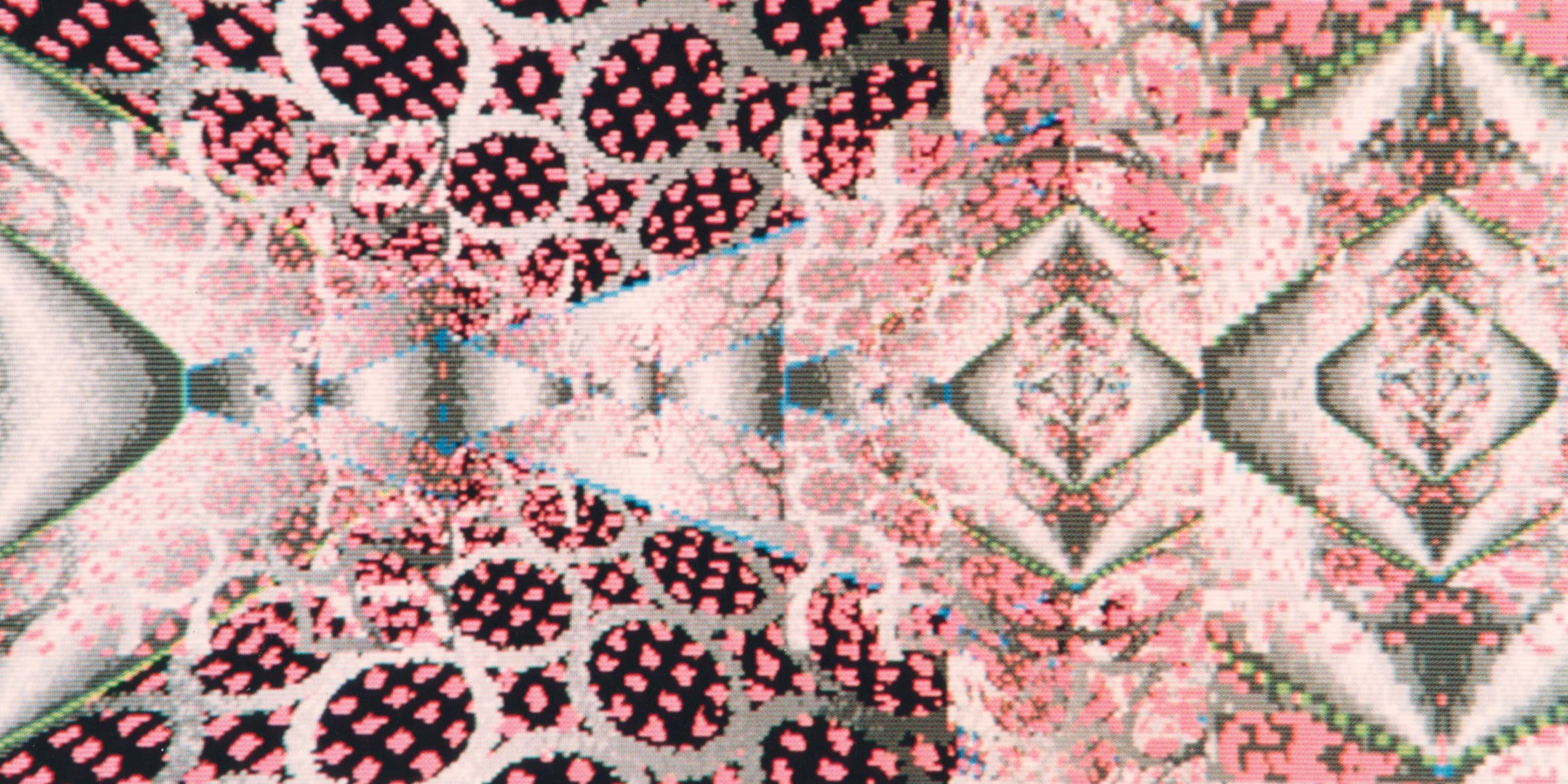


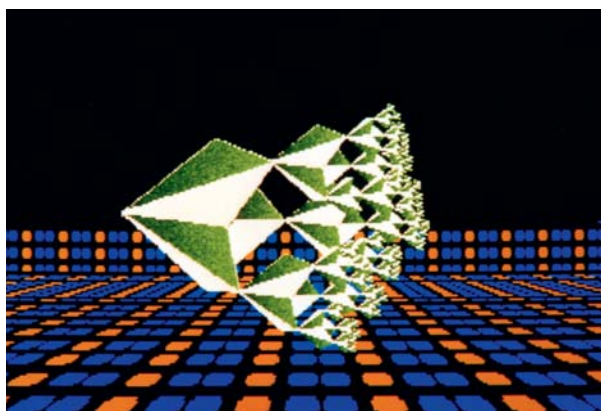
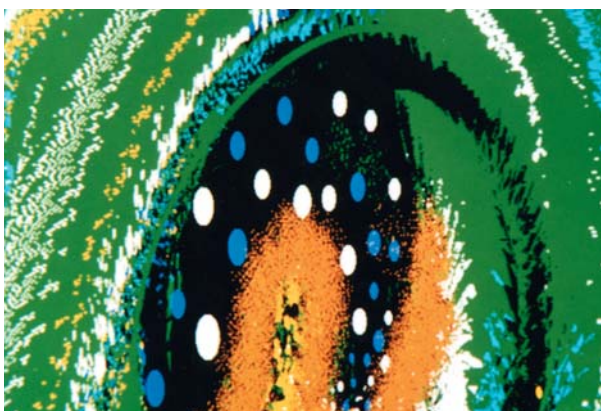
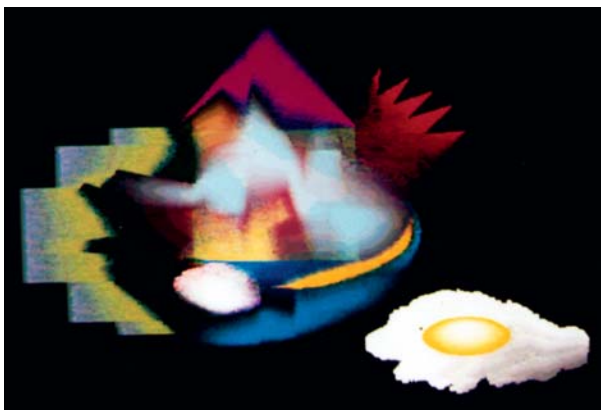
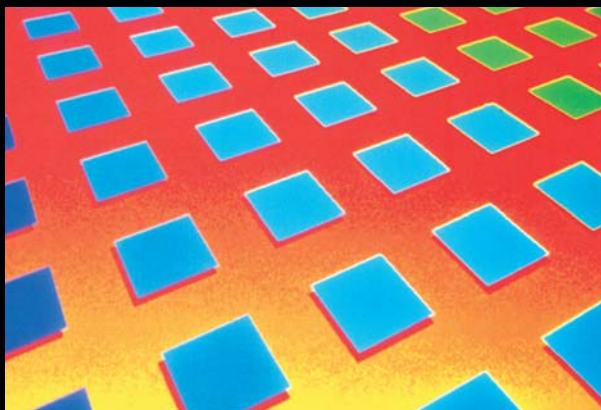
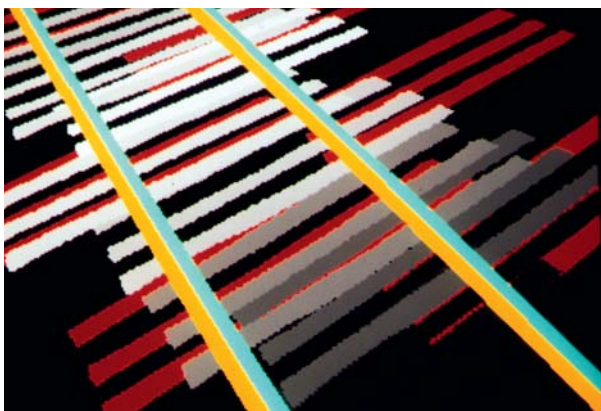
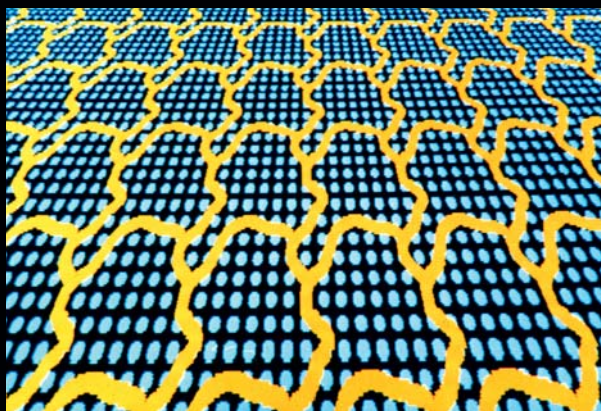


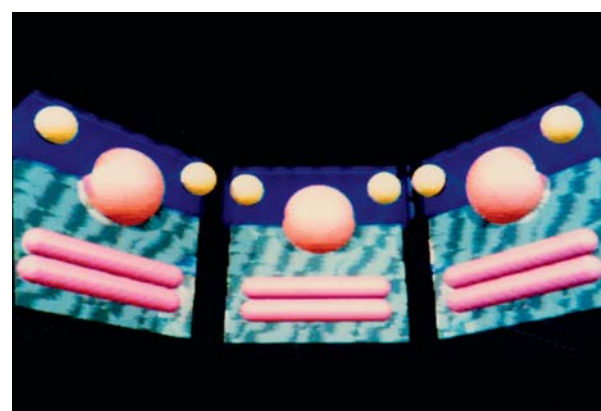
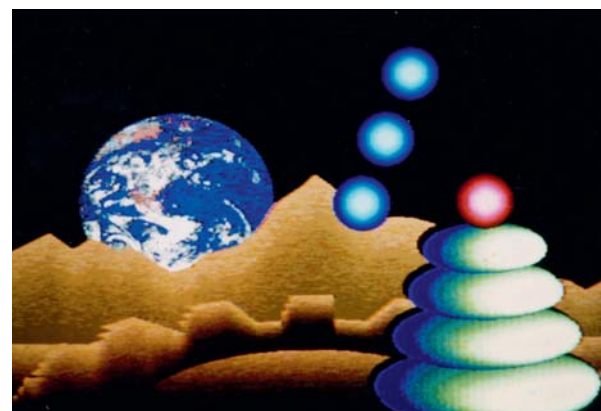
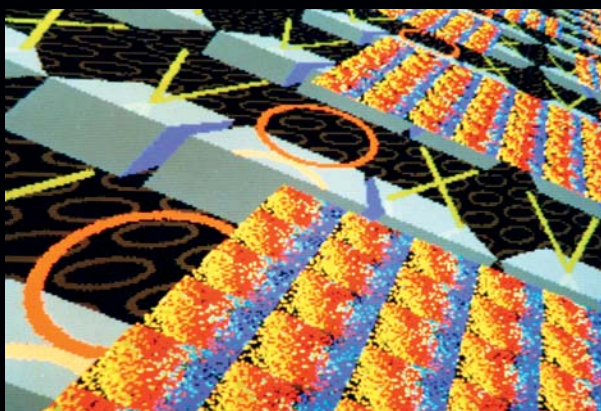
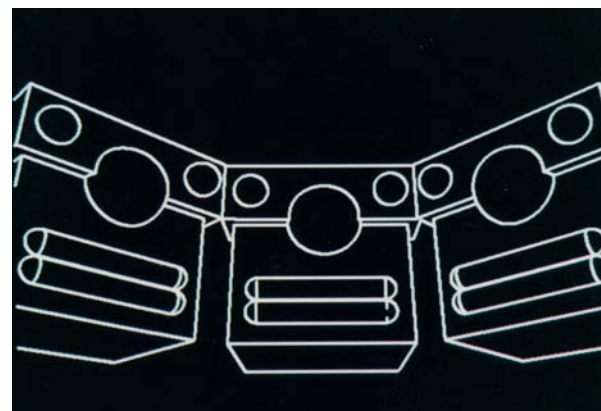
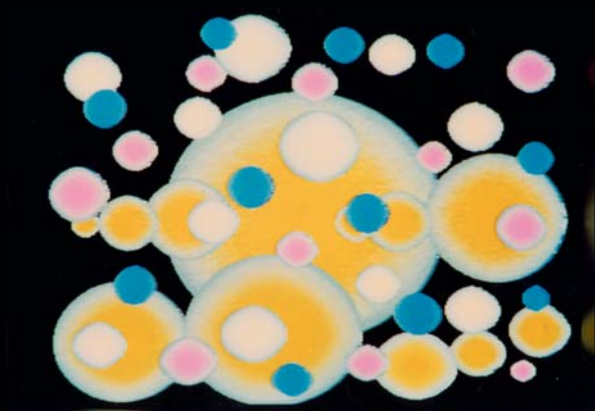


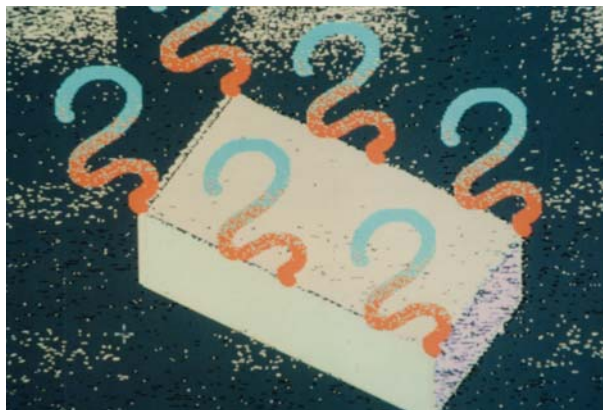
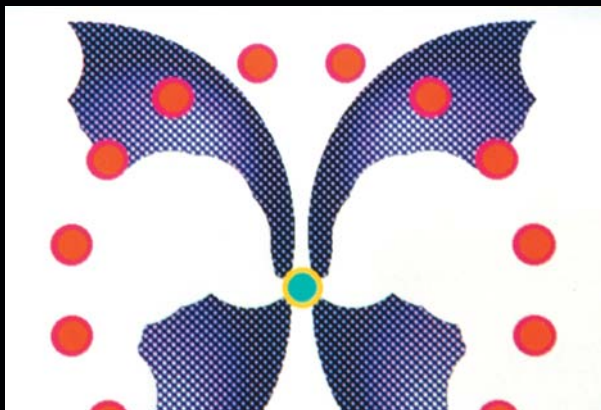
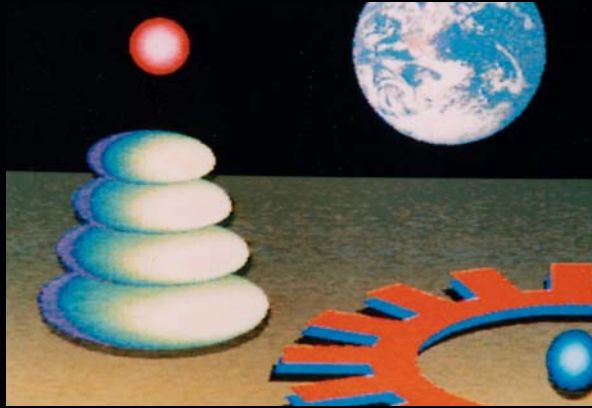
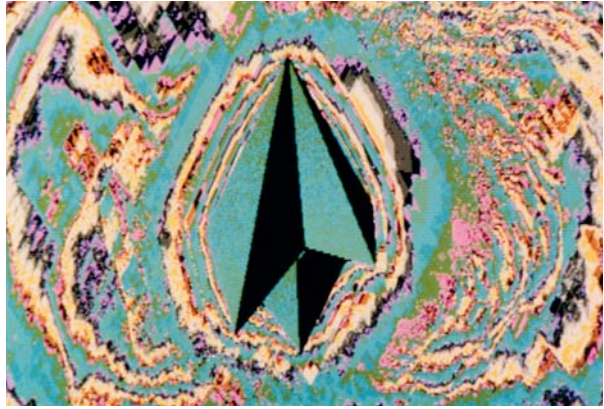
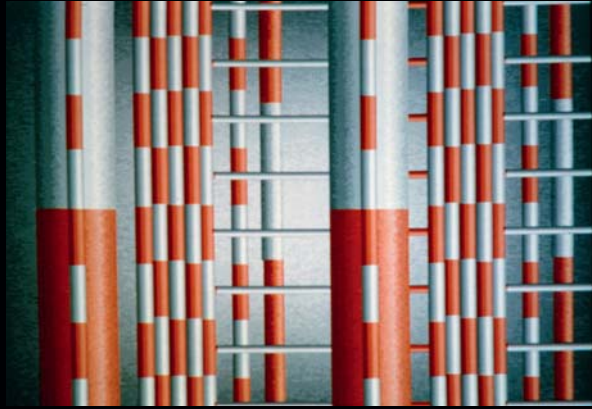
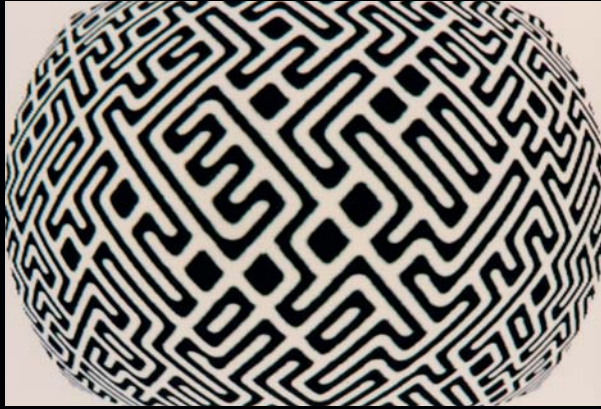


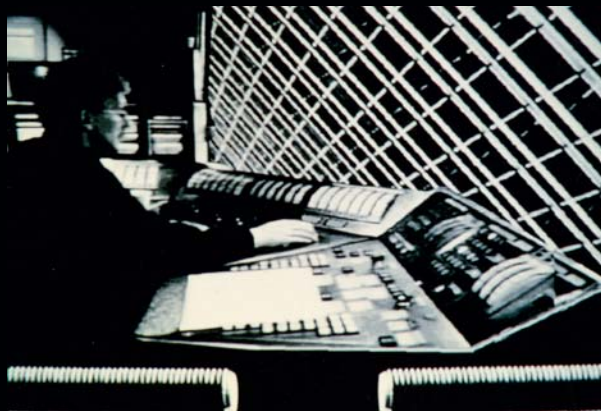
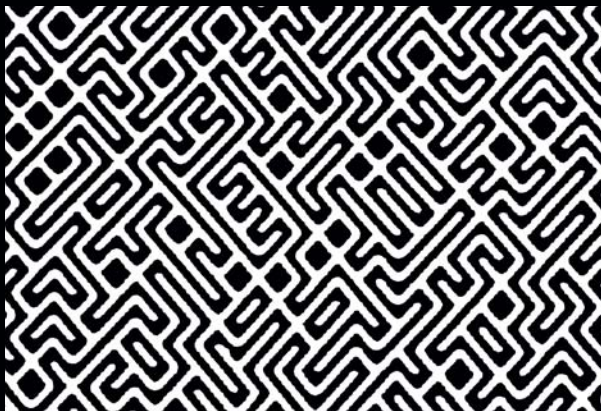
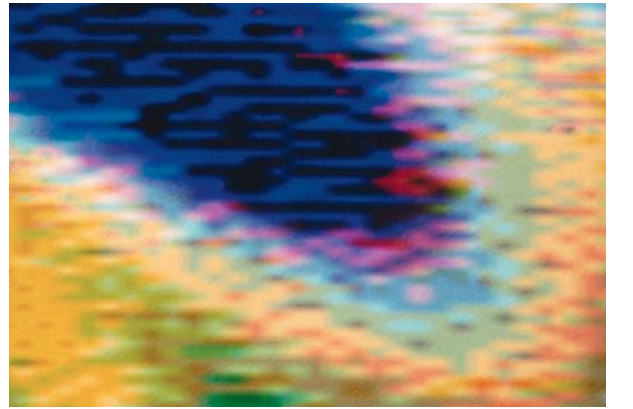
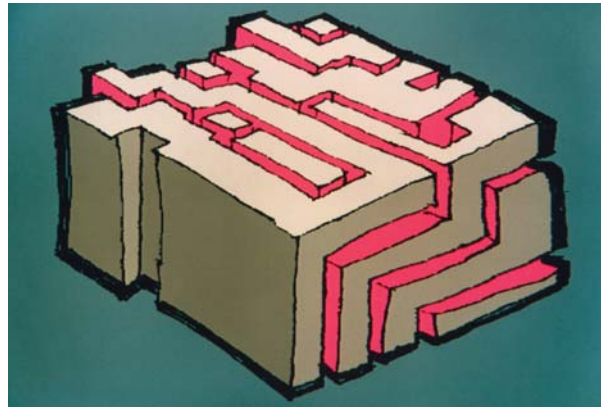
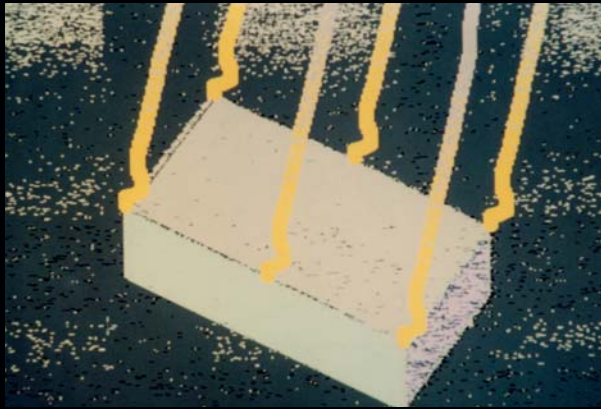
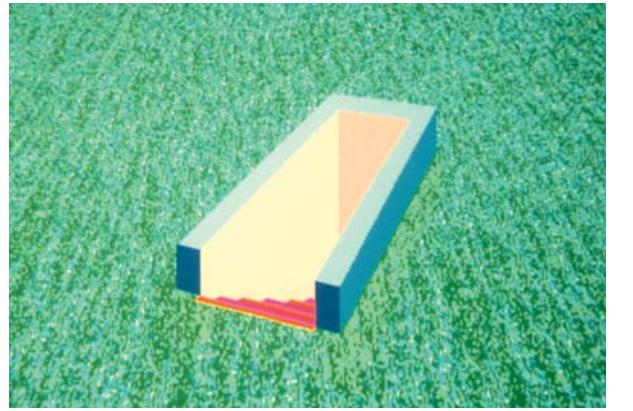


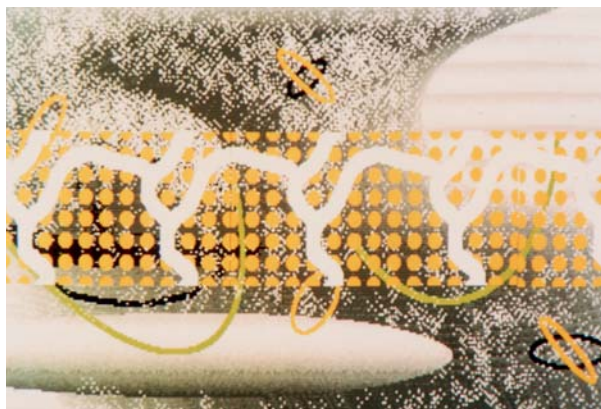
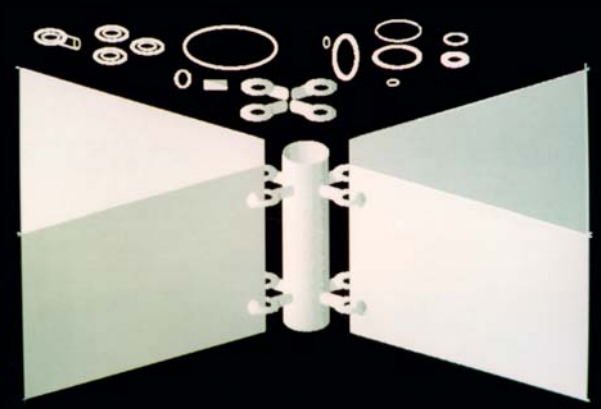
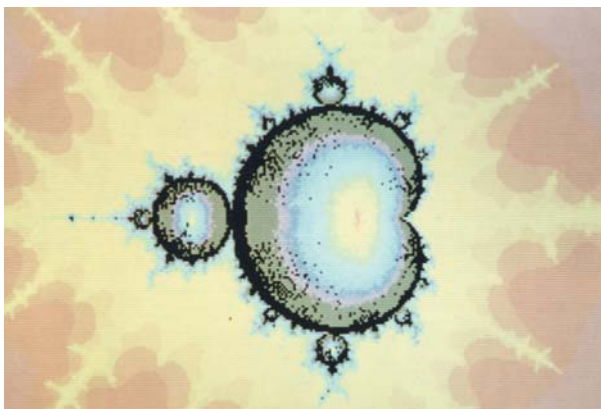
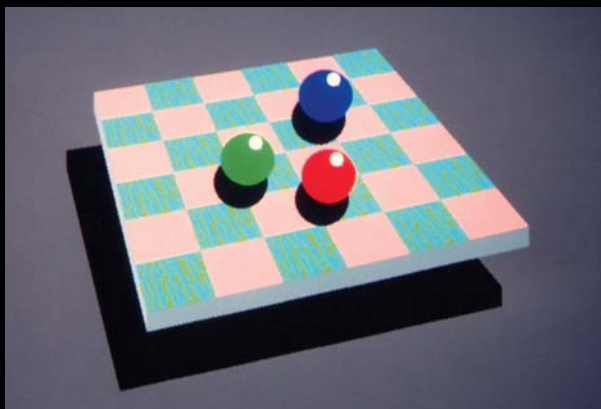
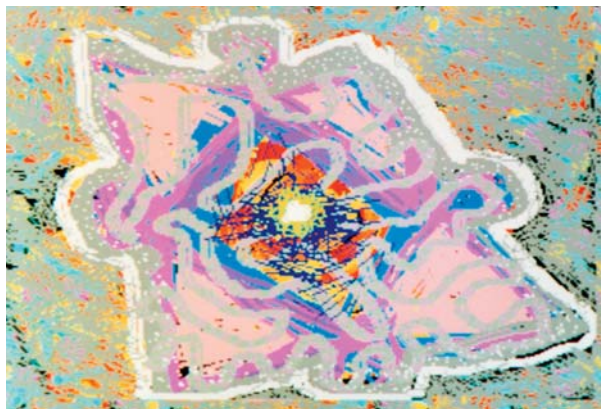
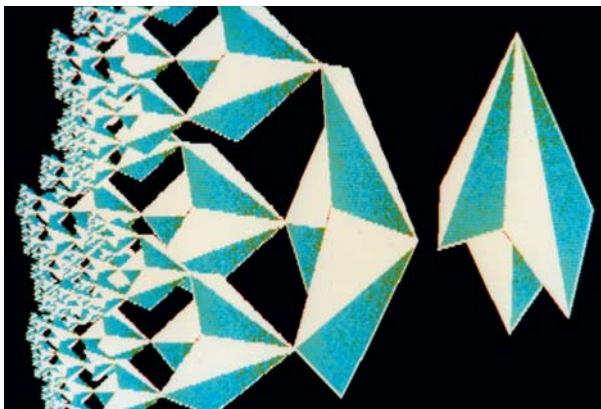






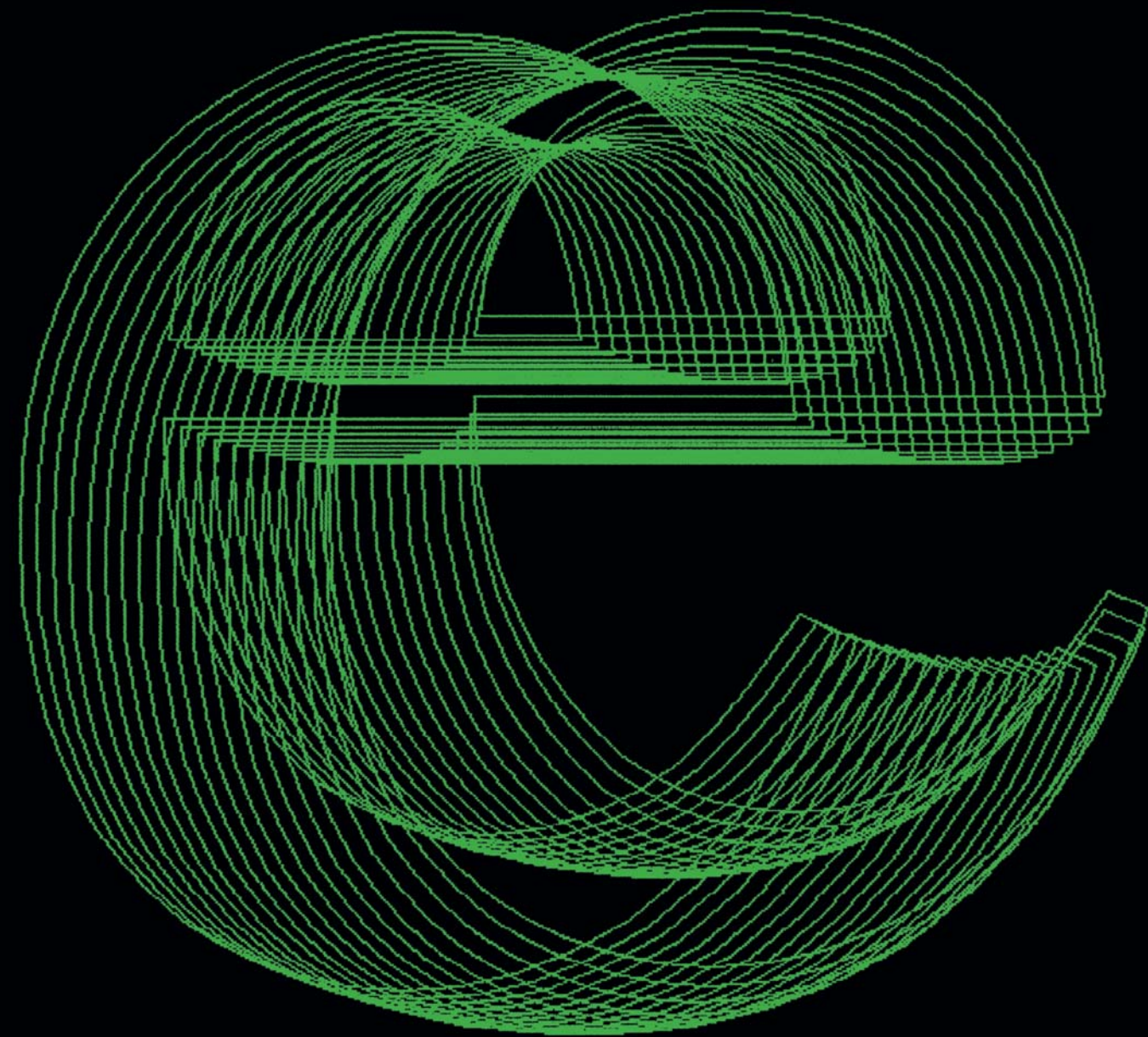
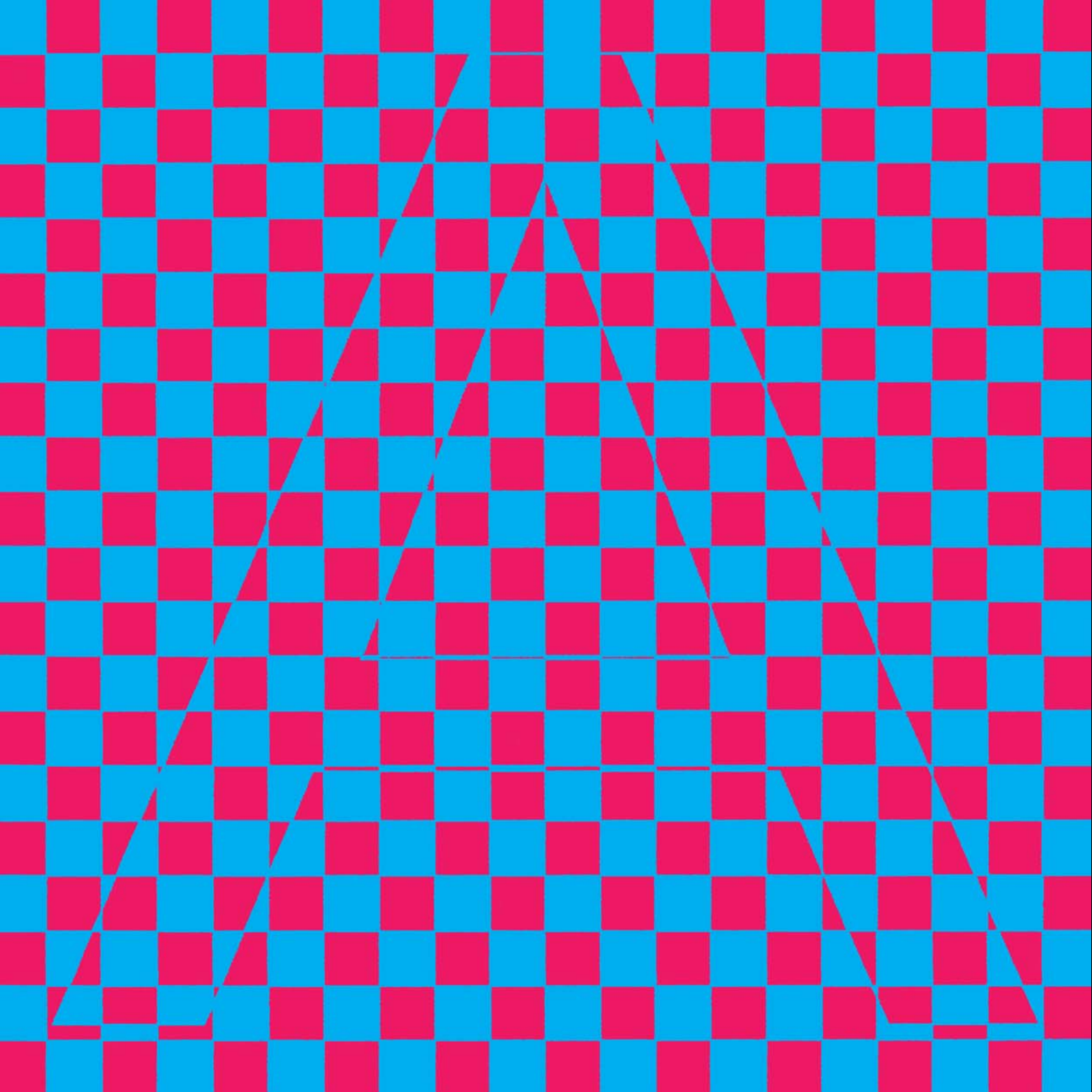


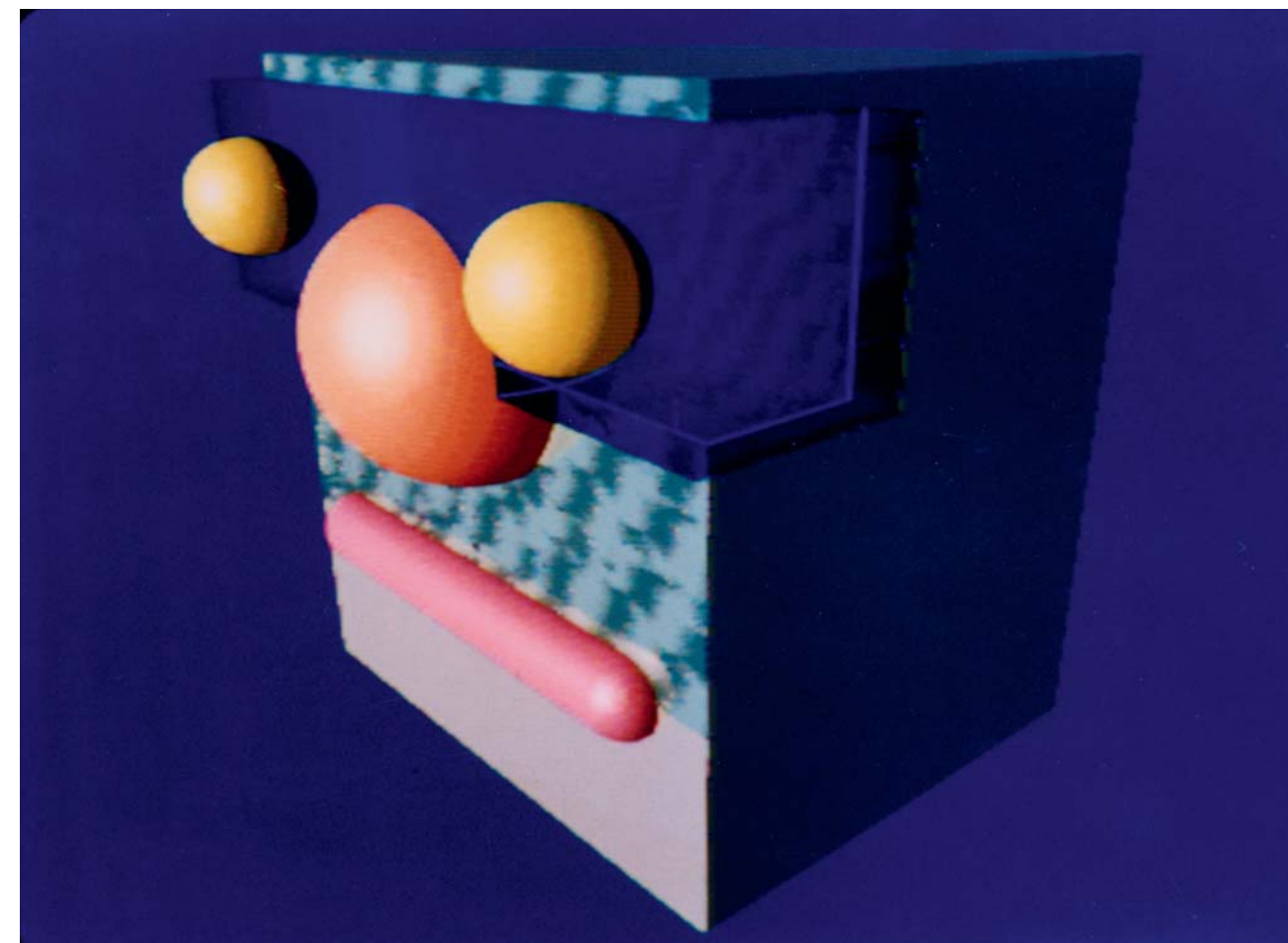






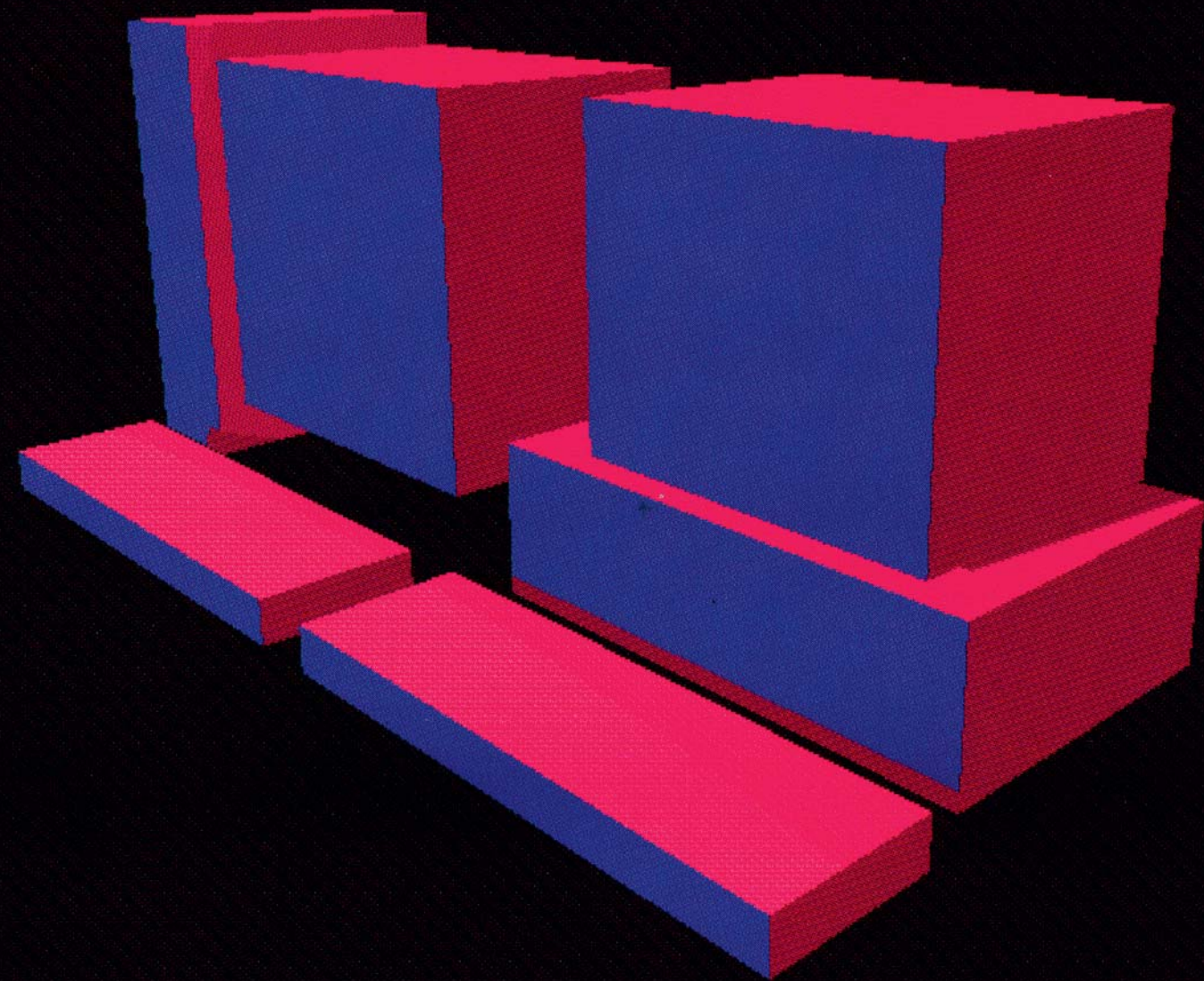
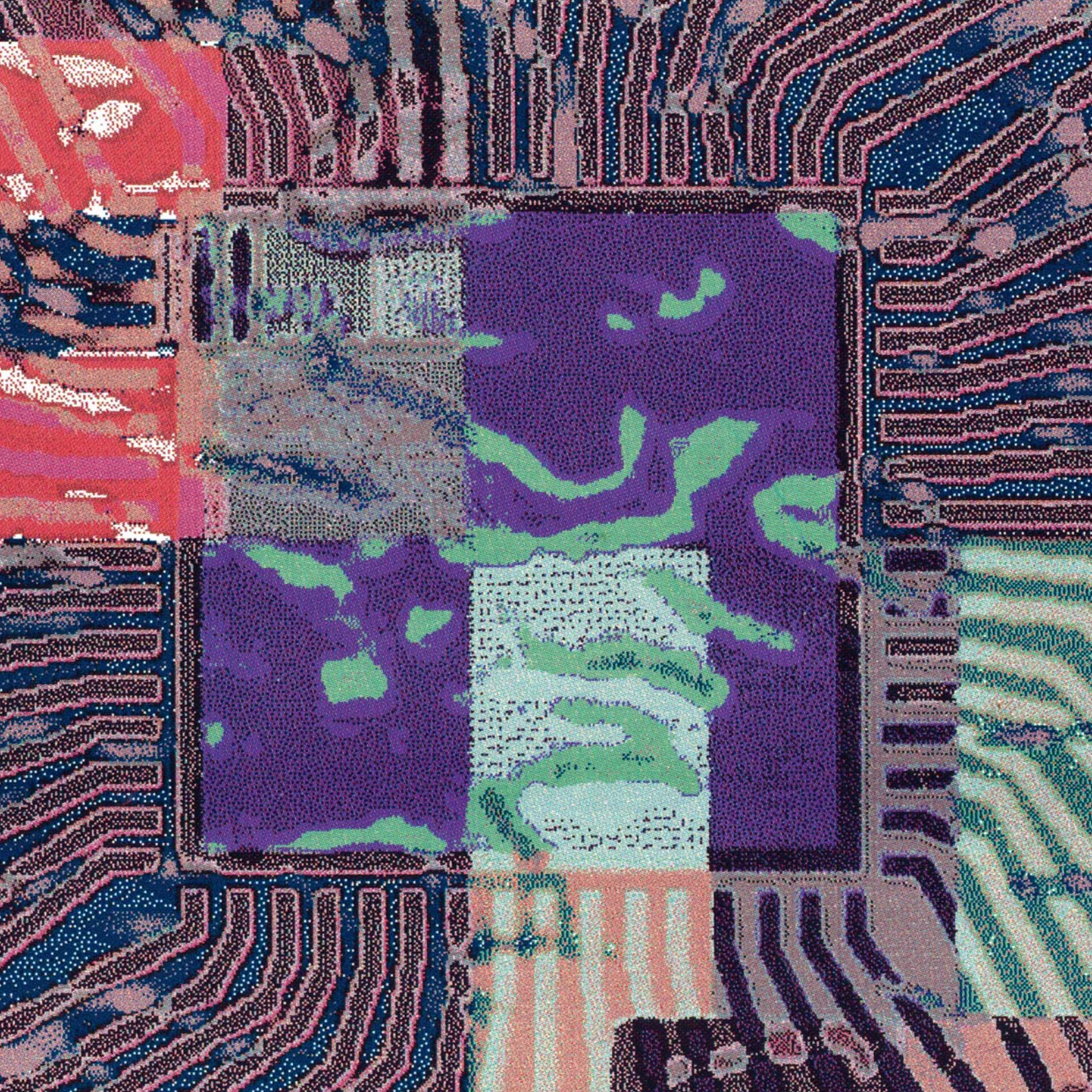
**de eerste
is altijd
de beste**

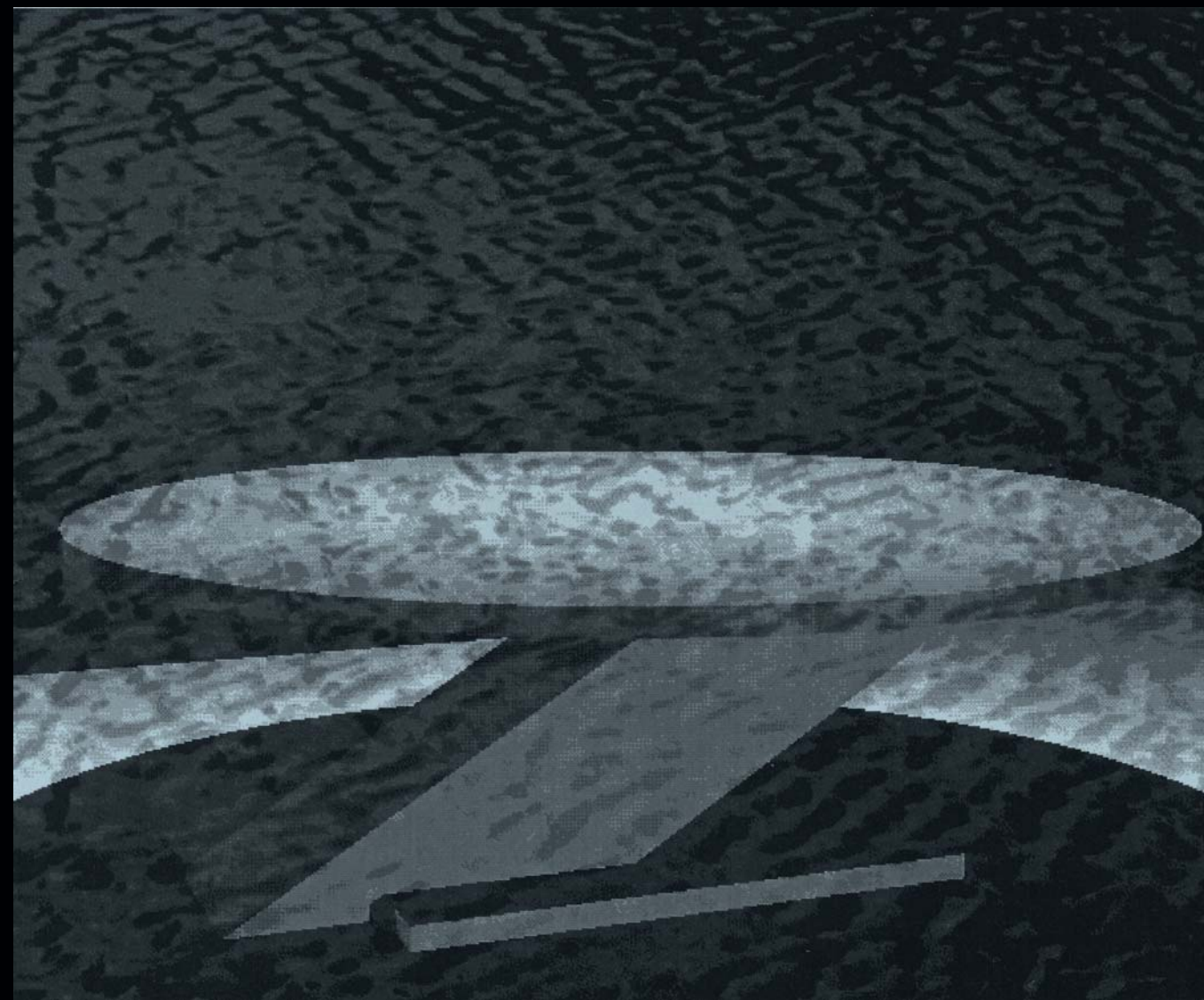


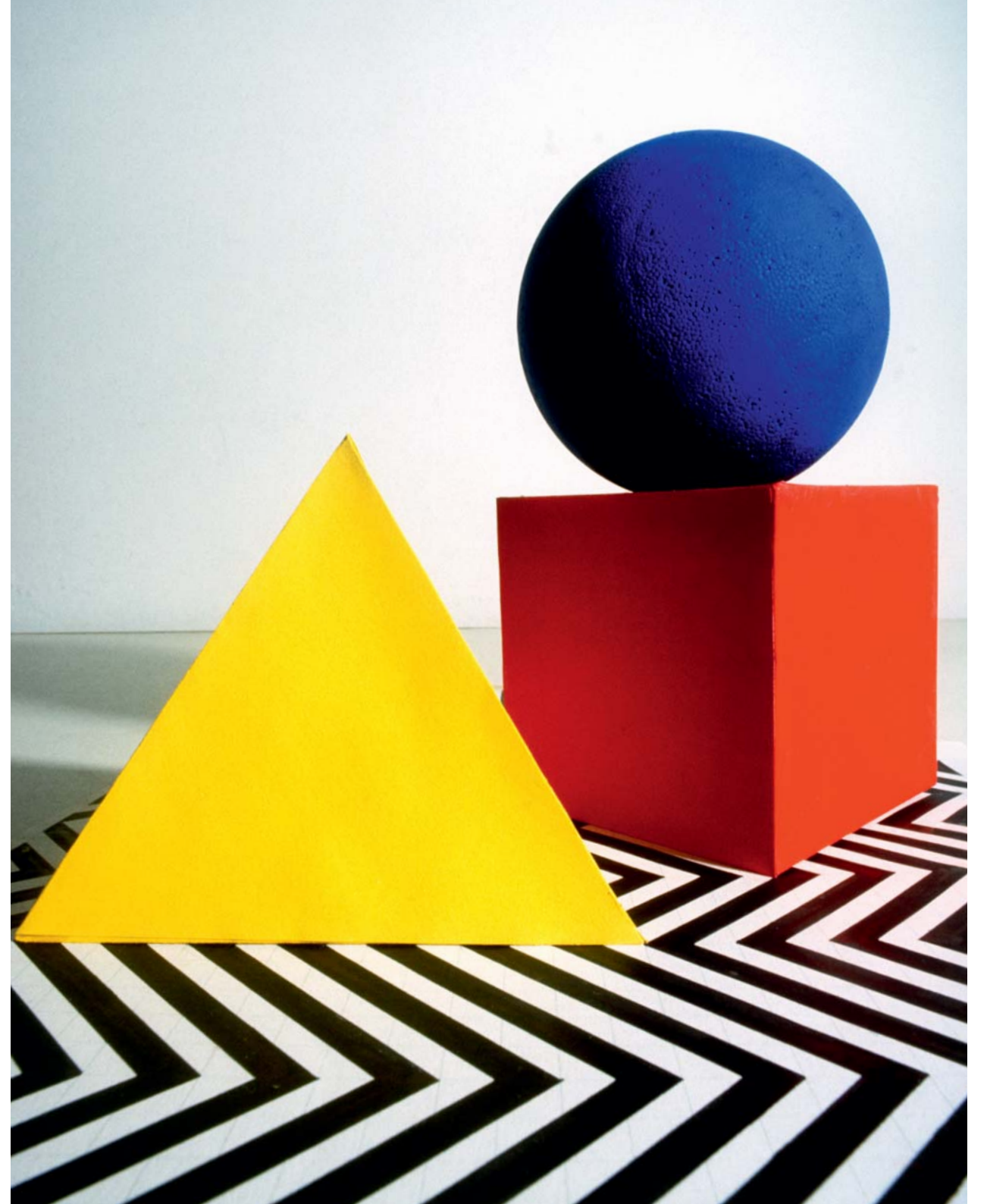


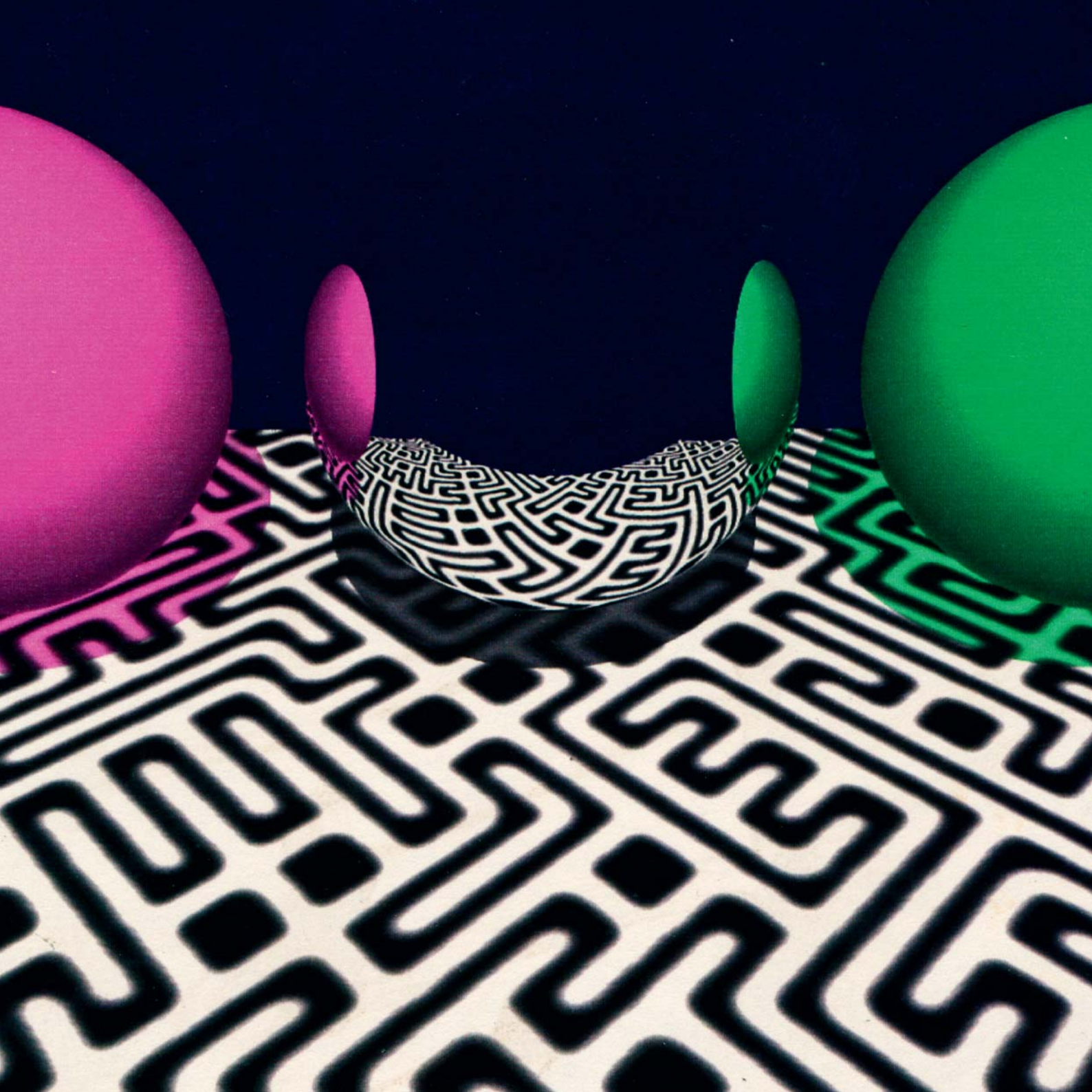
KRAFTWERK



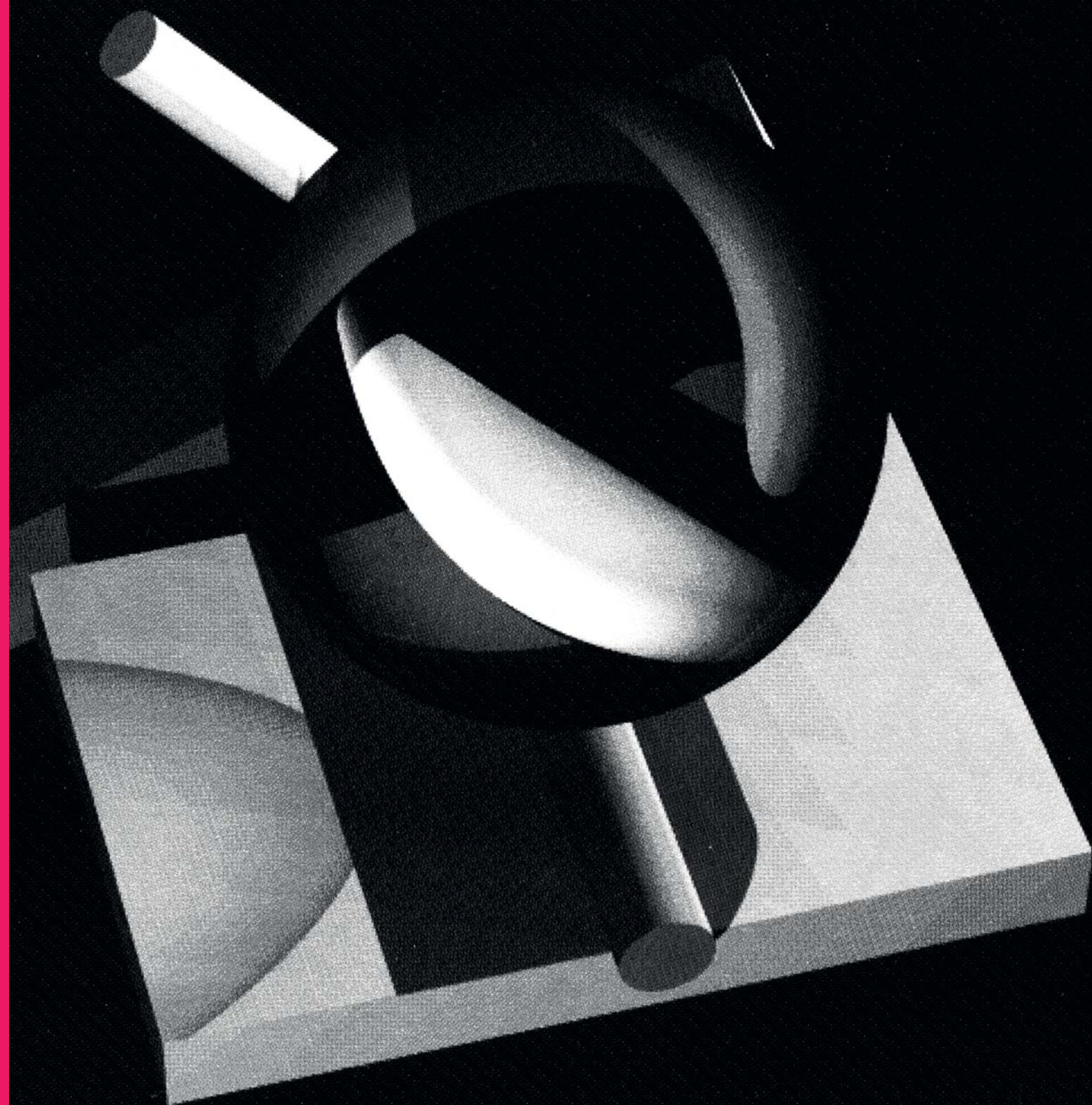
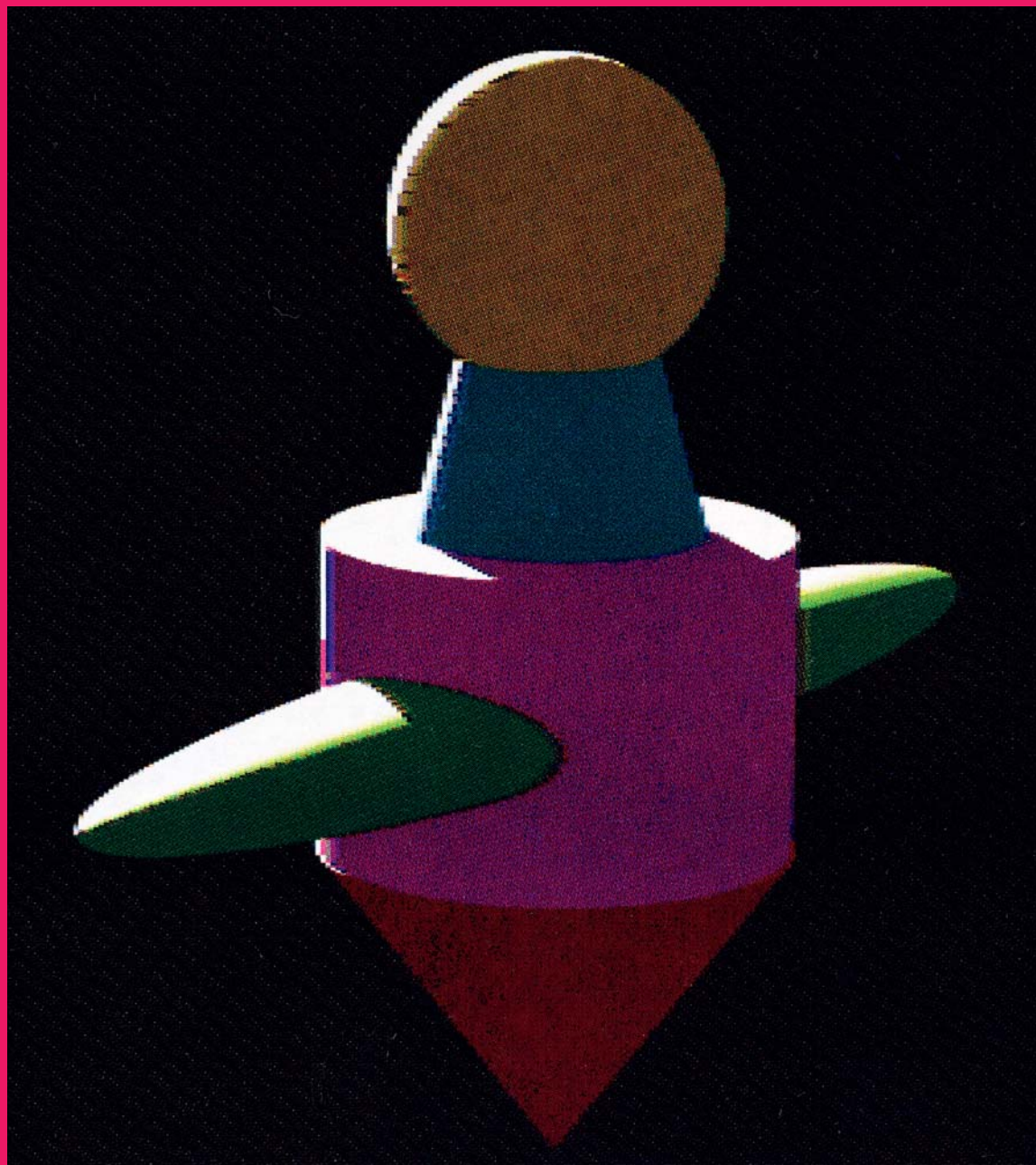


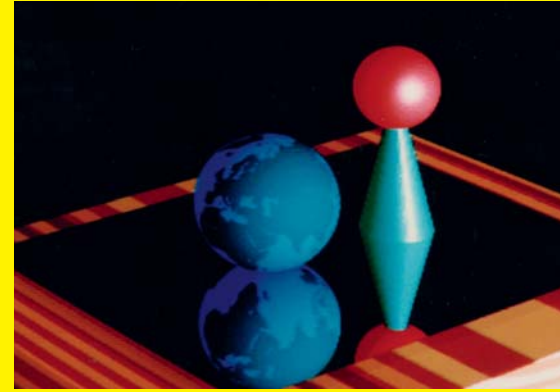
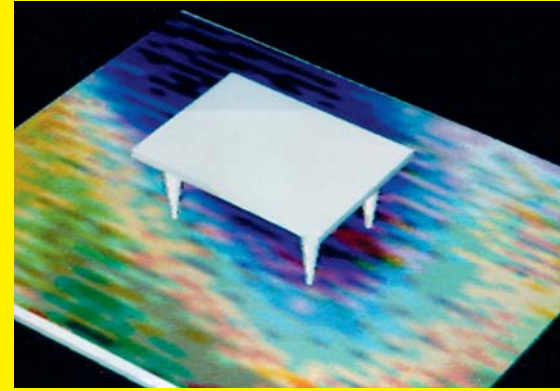
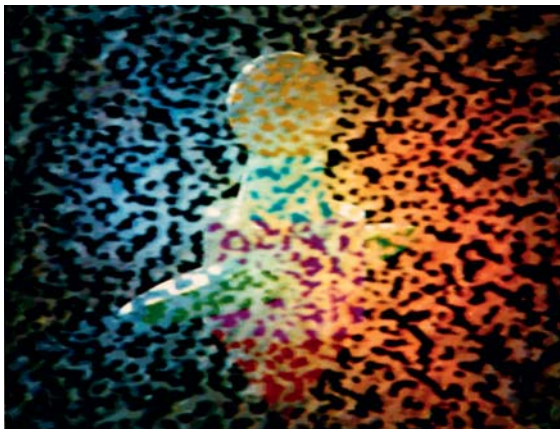
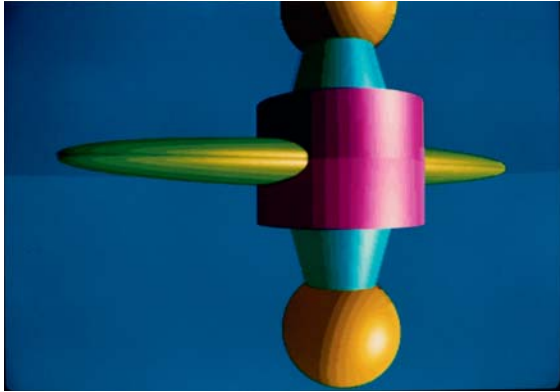


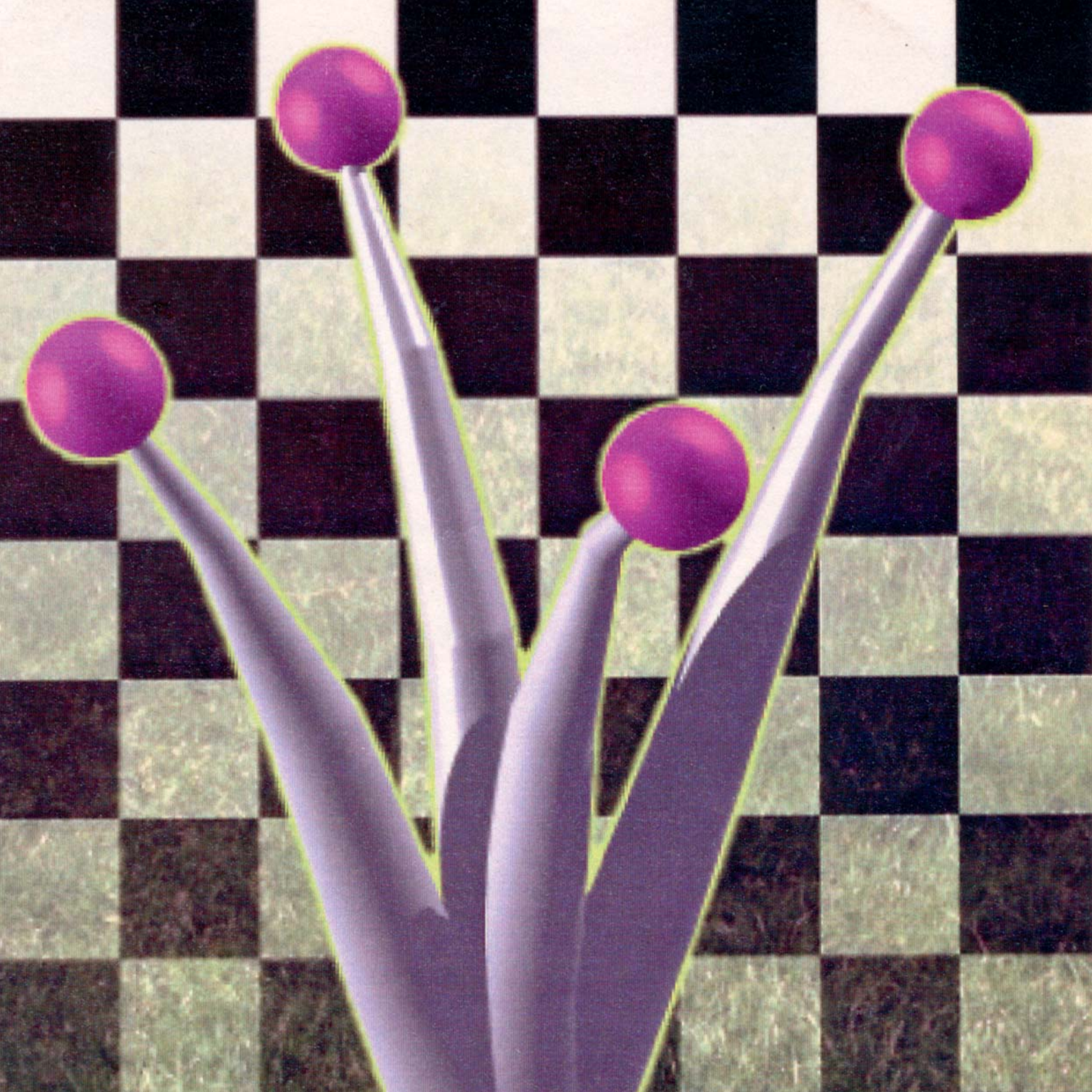


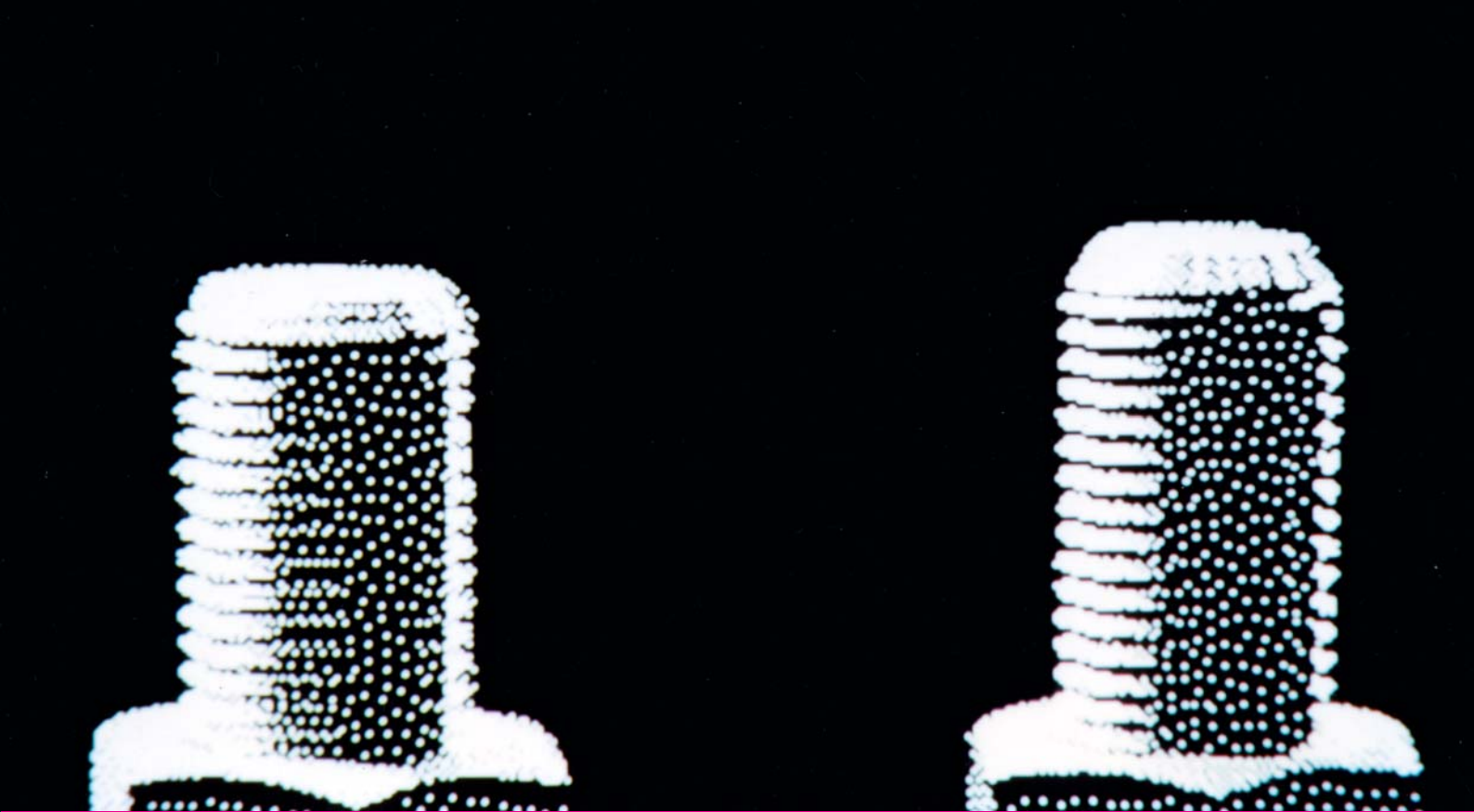
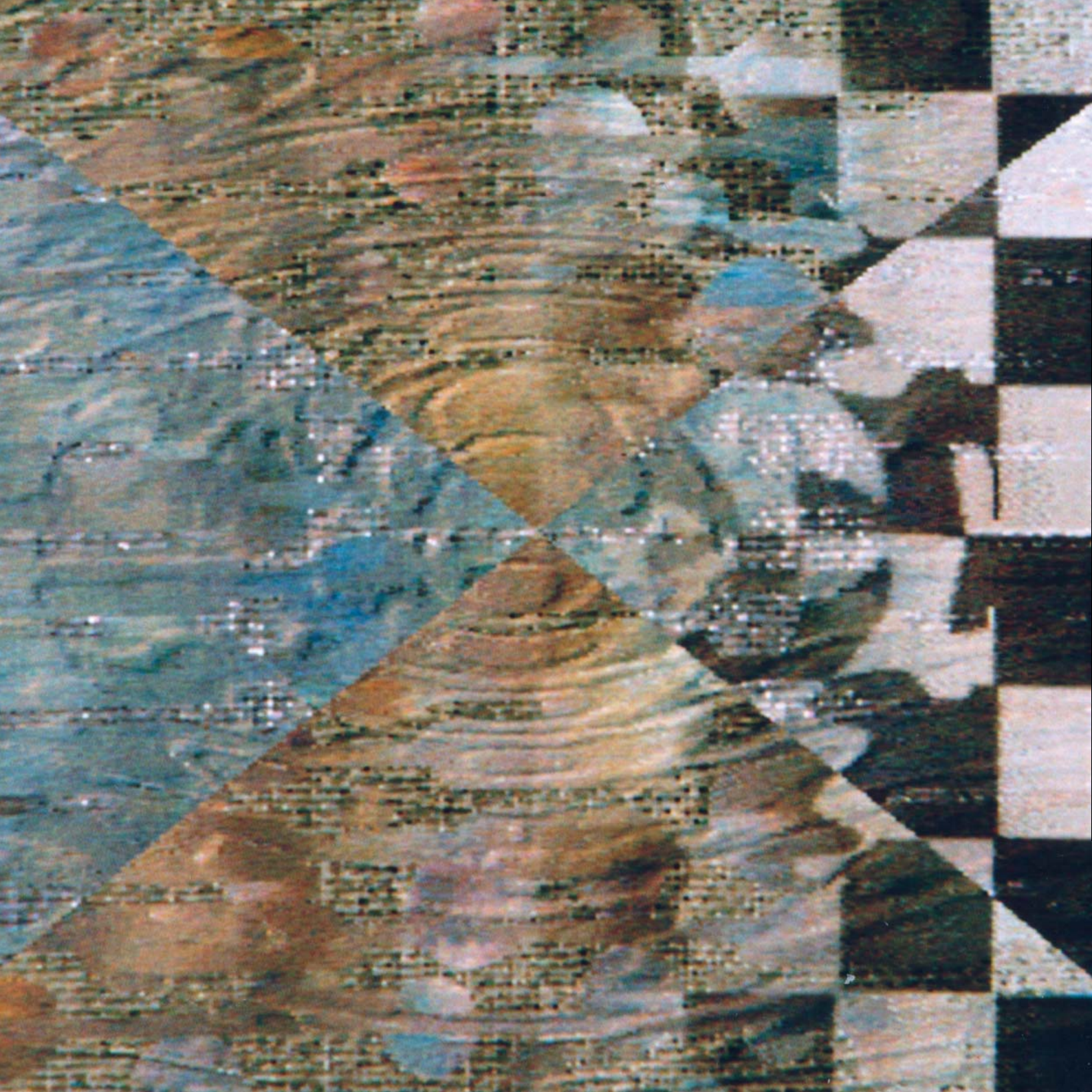


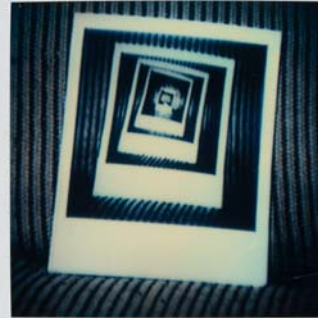
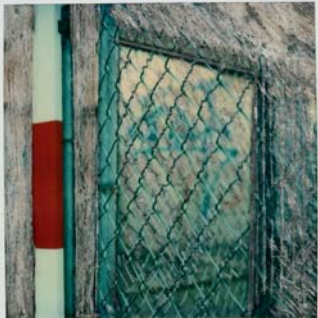
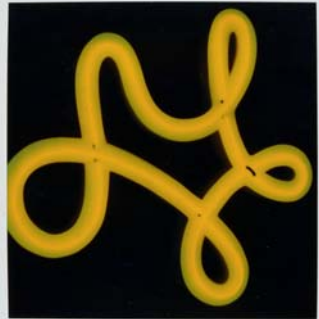
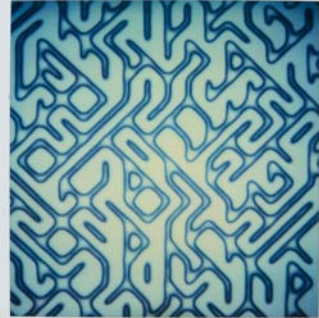
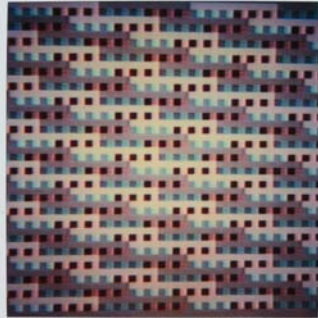
94	28.002777	30.2
62	21.003113	0.26
871	27.682114	5.1
5168	13.173294	43
10605	8.3090973	3
821213	1.6053772	
.9711	27.844849	1
745728	40.948105	
.437271	2.8193665	
0.556305	26.748276	
0.617371	31.32476	
0.903051	29.5500	
0.030334	32.961	
6.9060672	03.00	
11.904024	43.00	
000	40.675705	5.00
0000	0.9090545	44
10000	0.9379577	
4.70077	00.567640	
4.311001	30.399077	

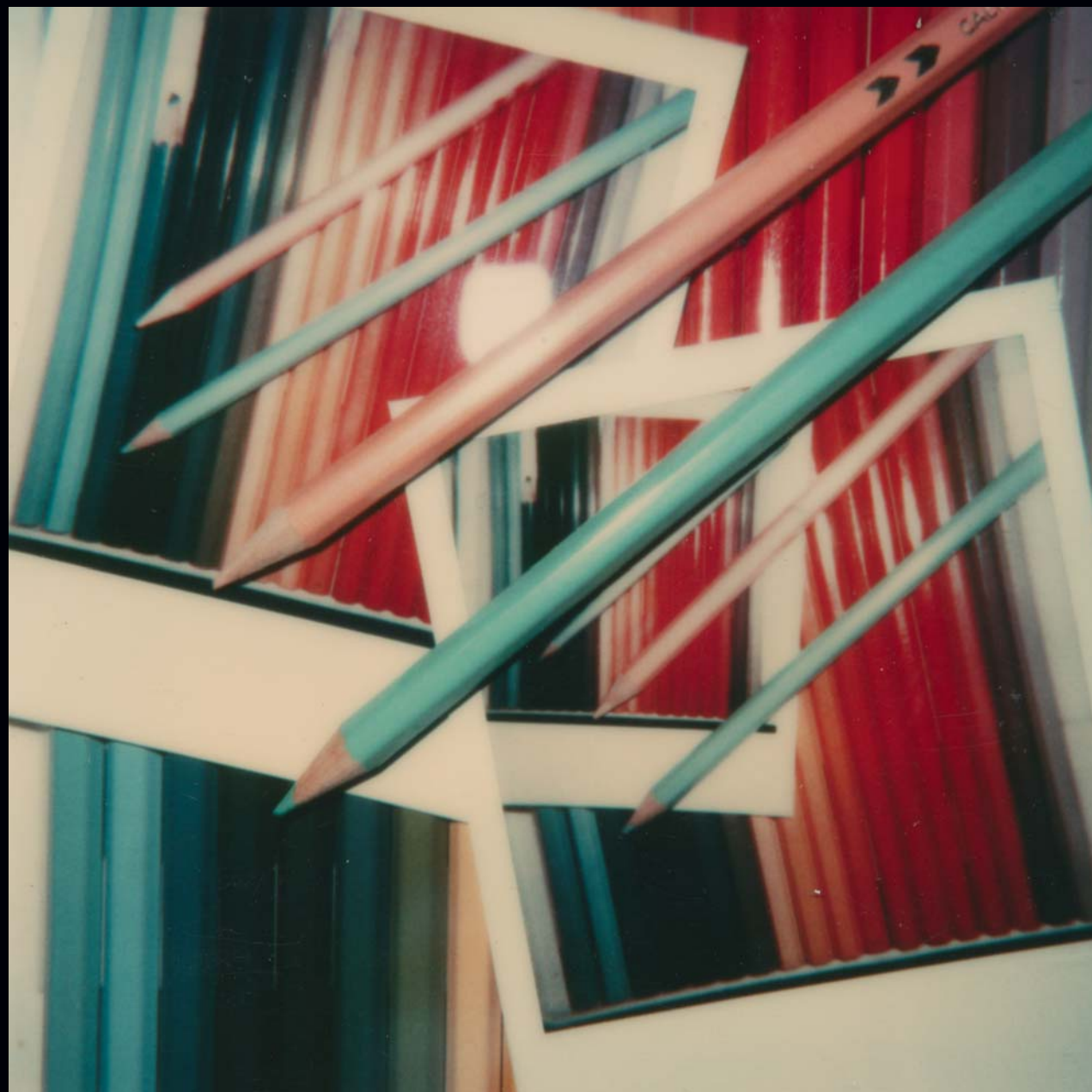


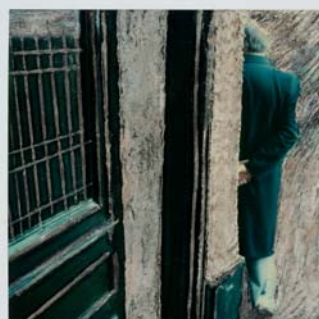
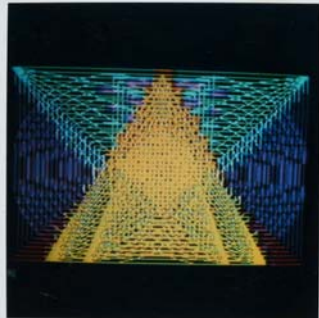
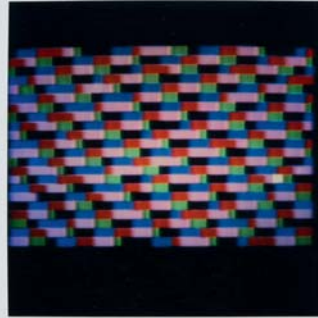
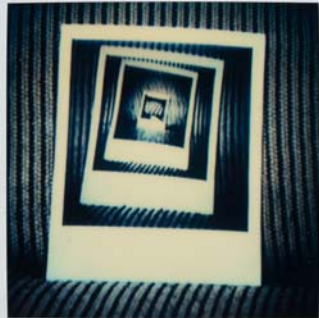






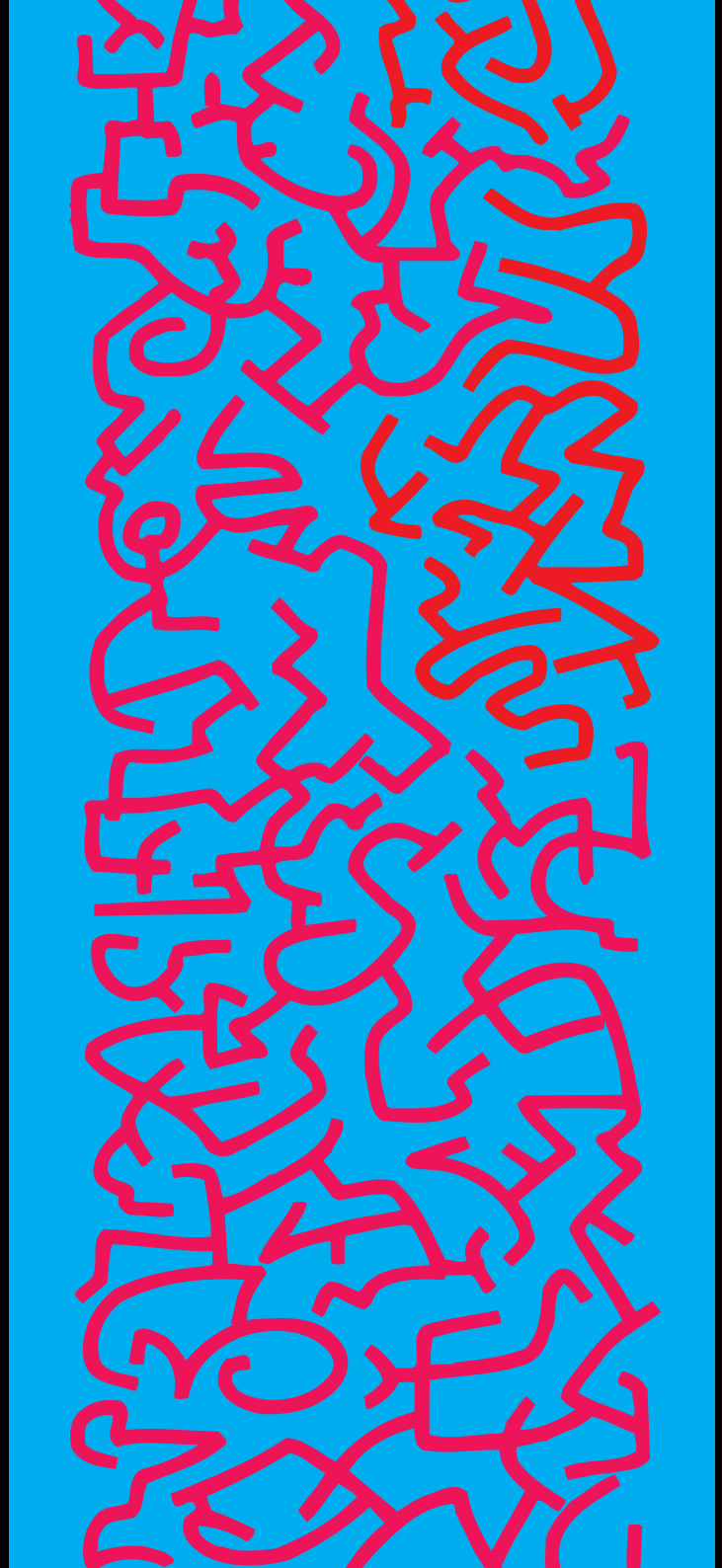
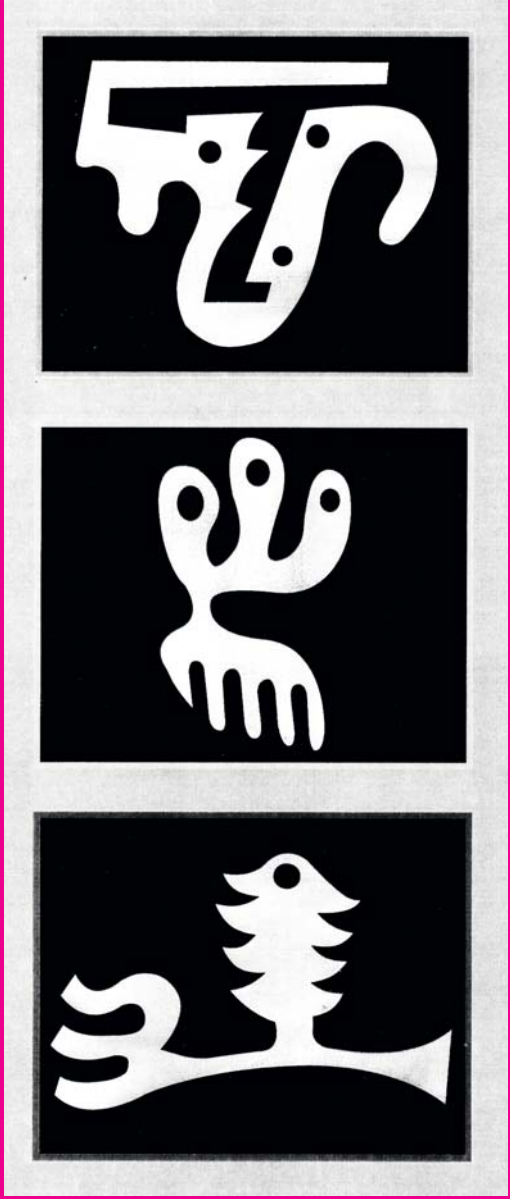


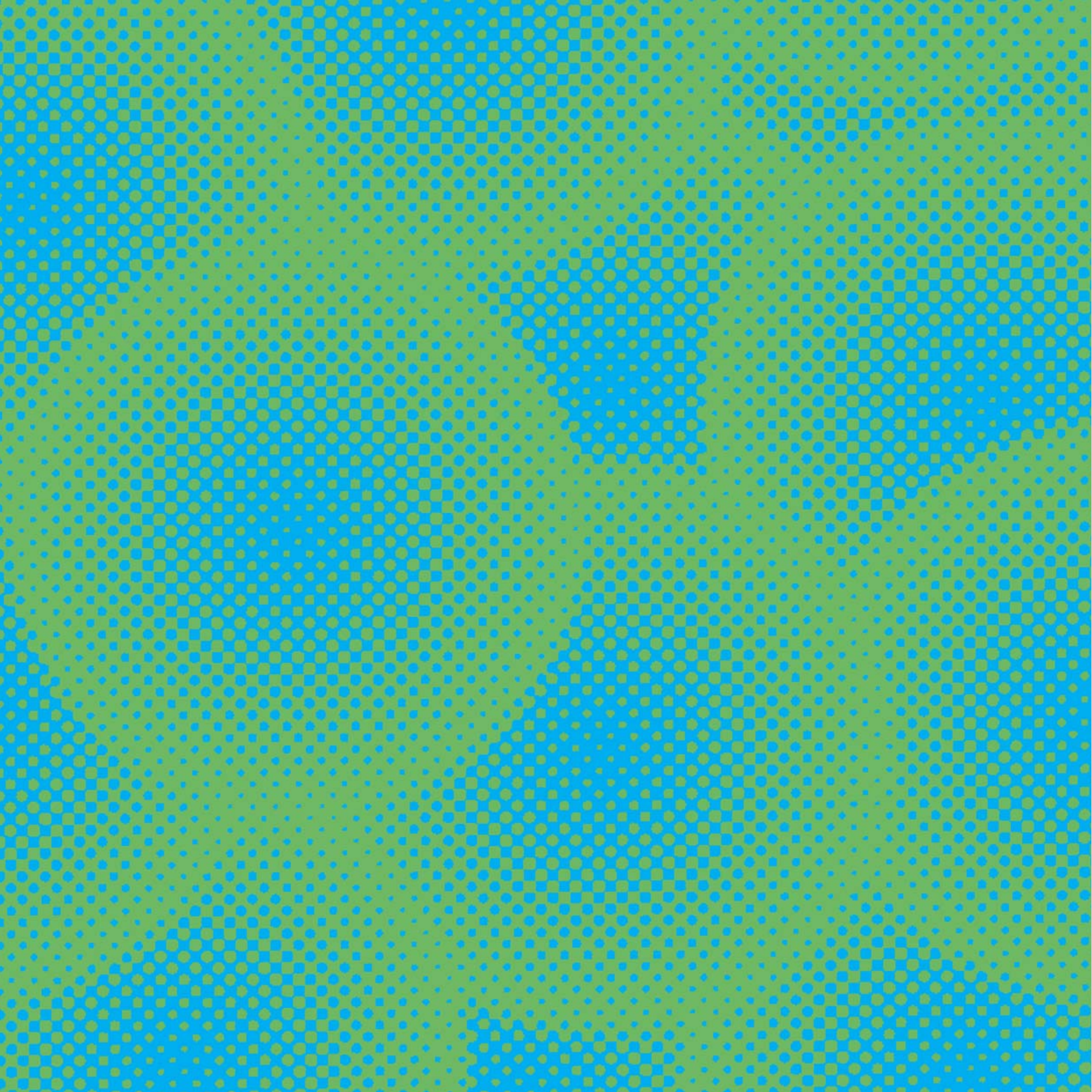




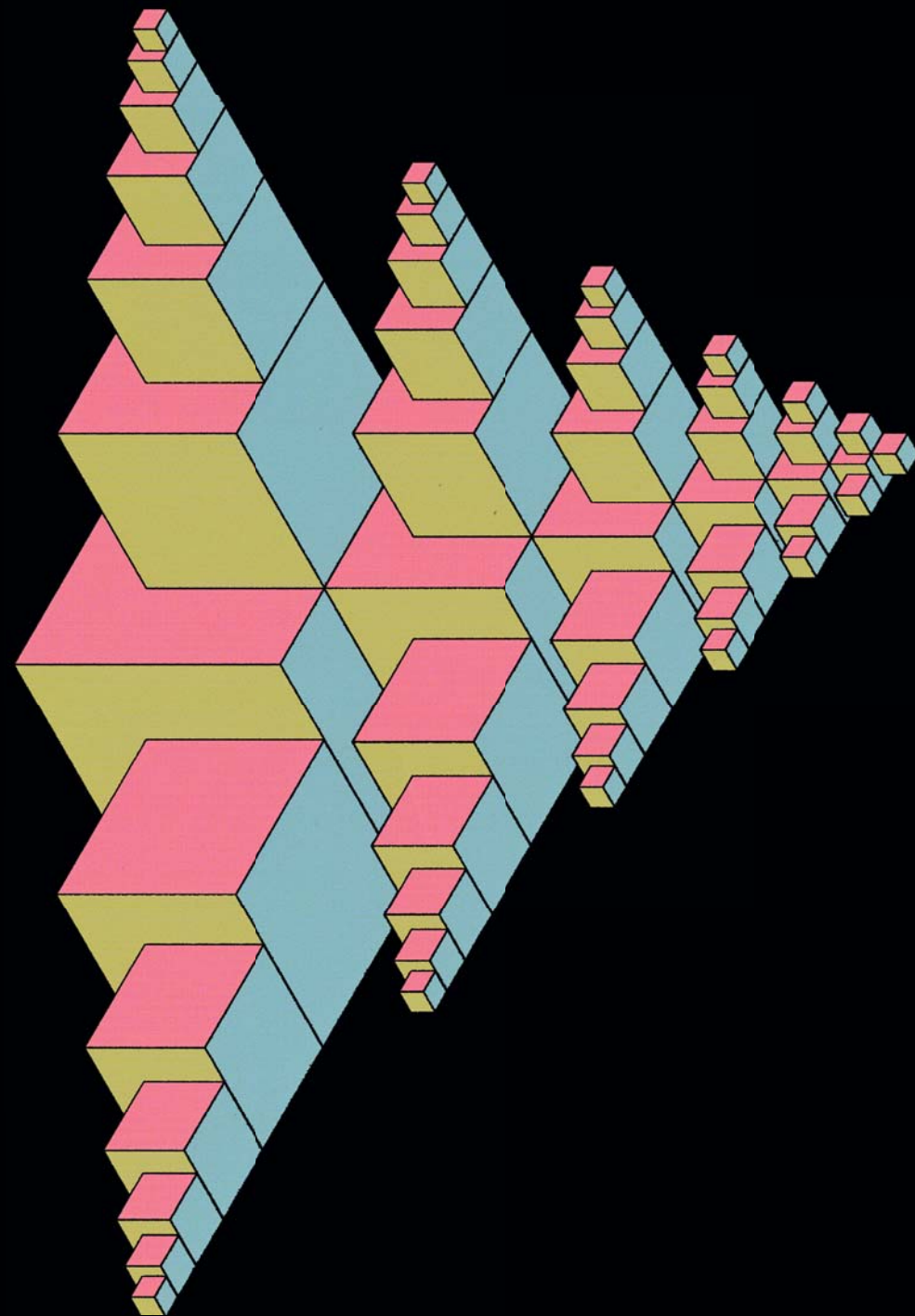


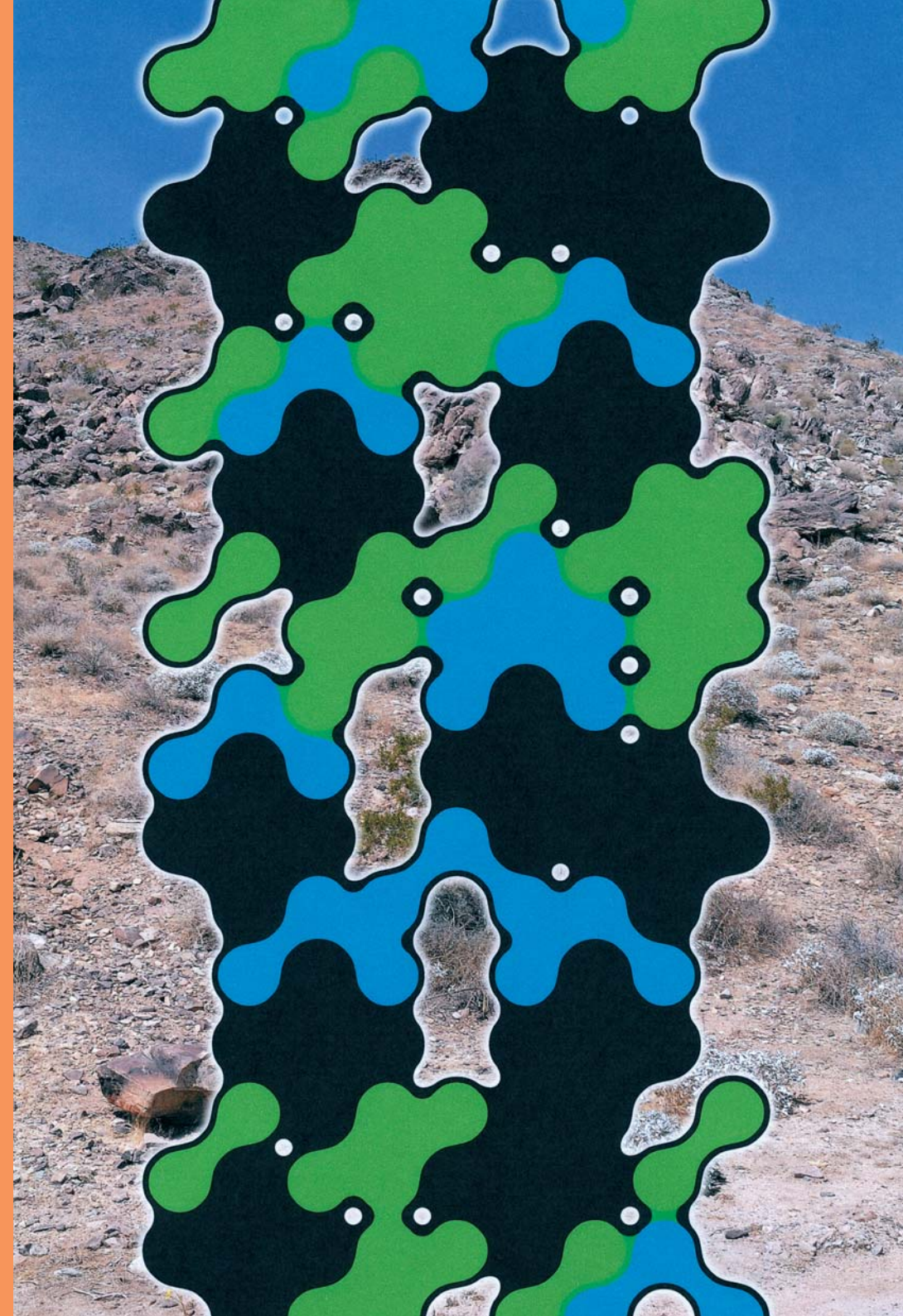
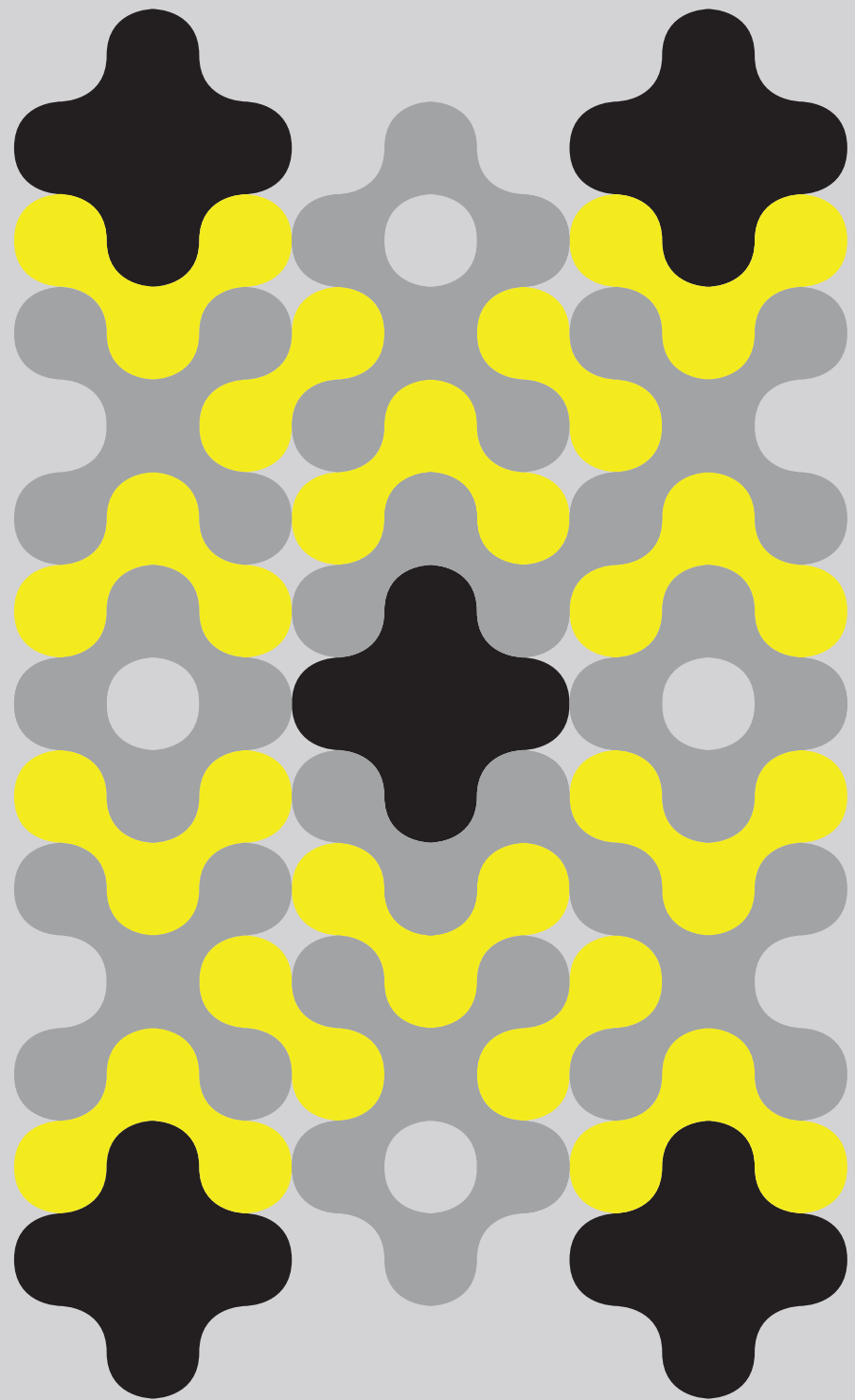
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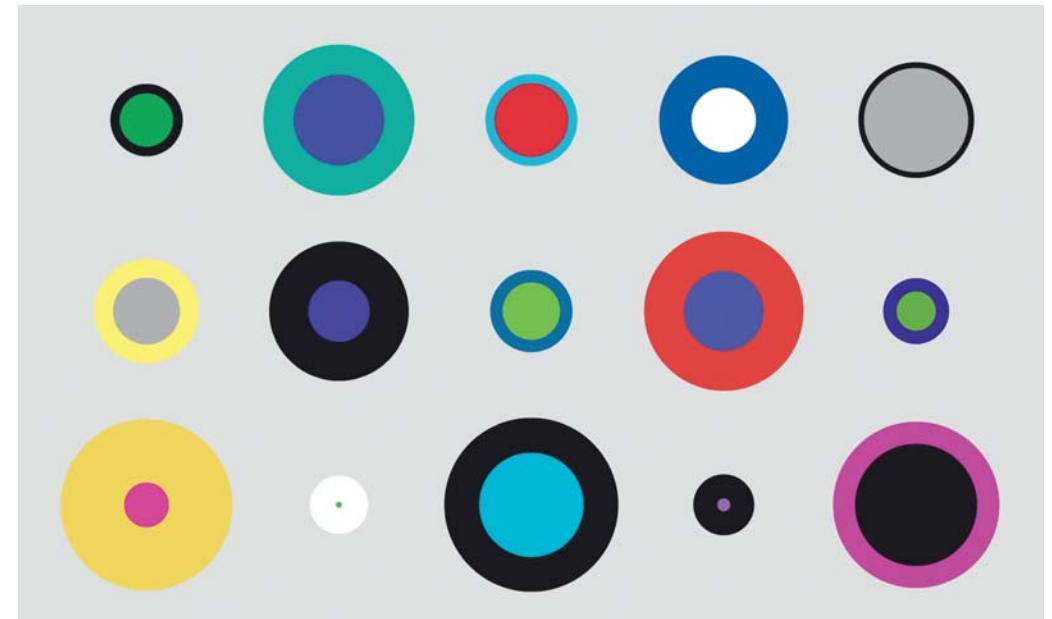
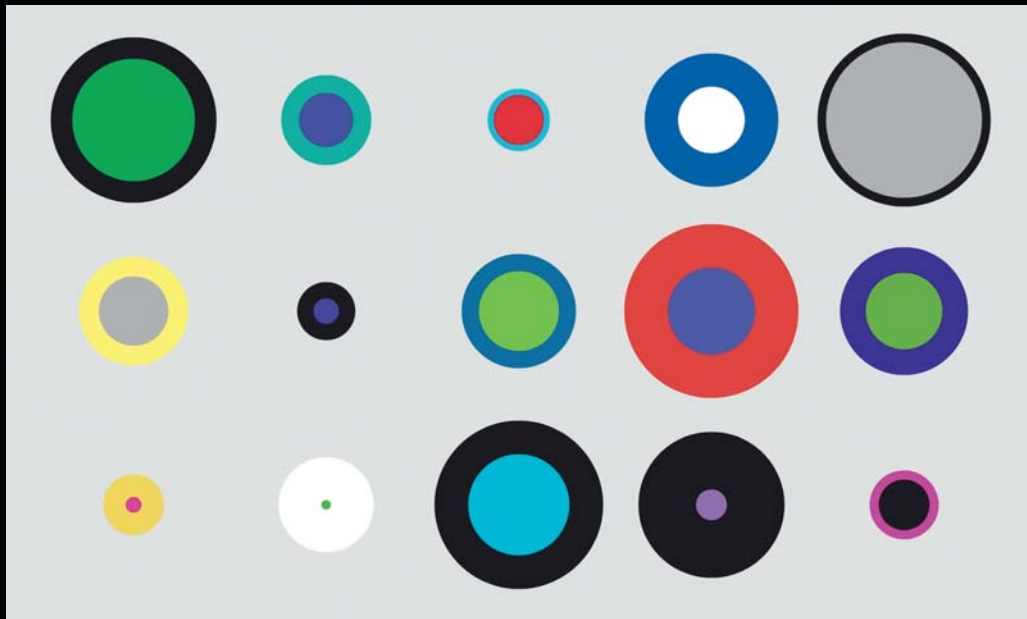
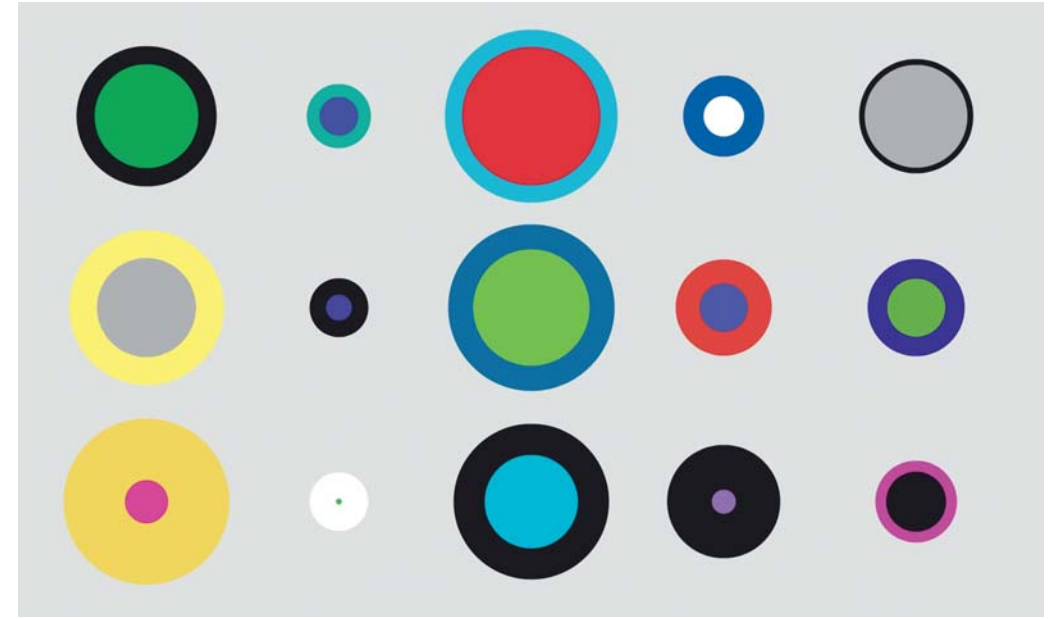
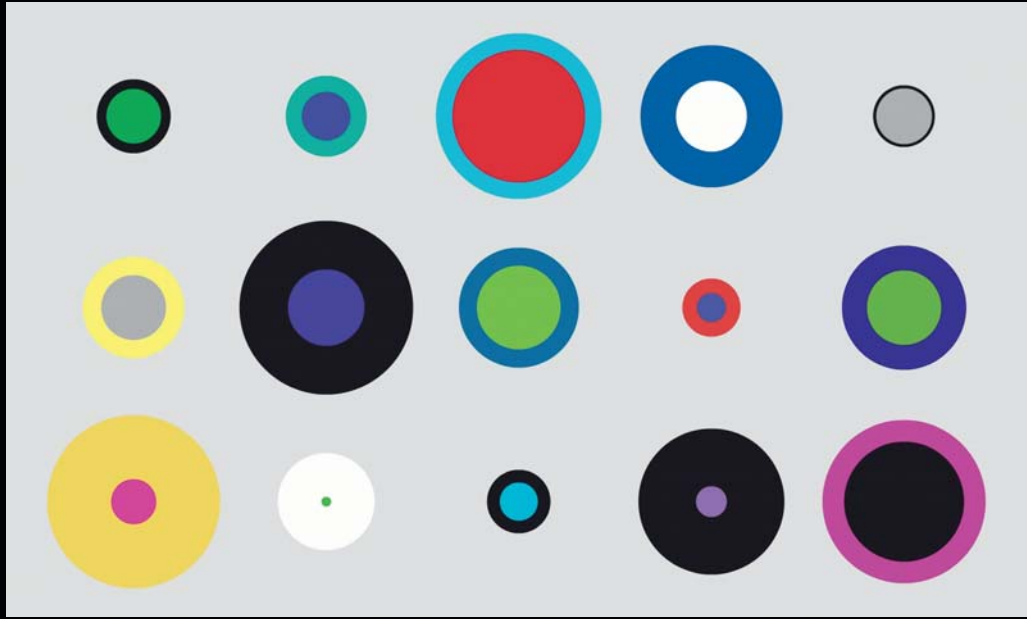


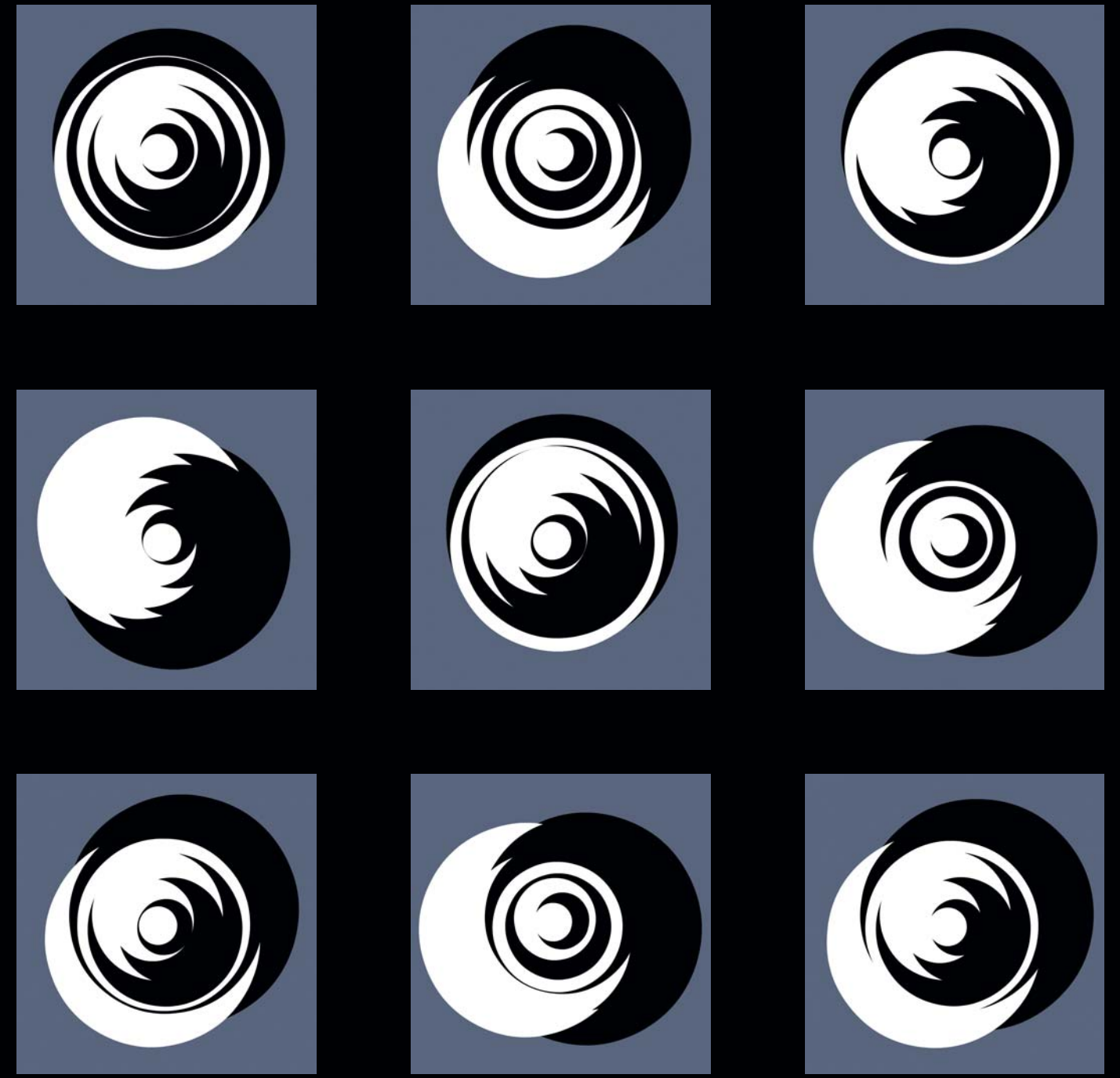


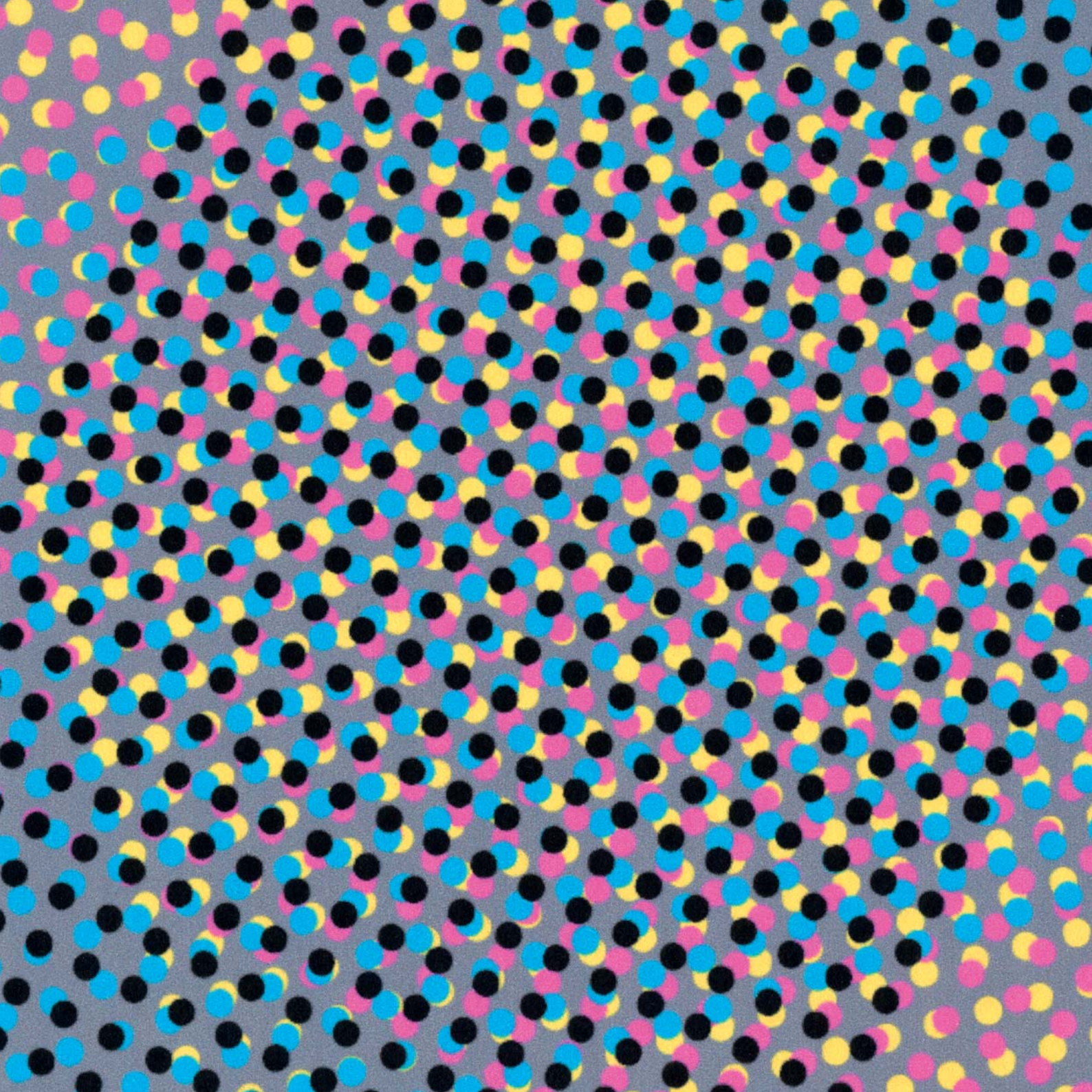




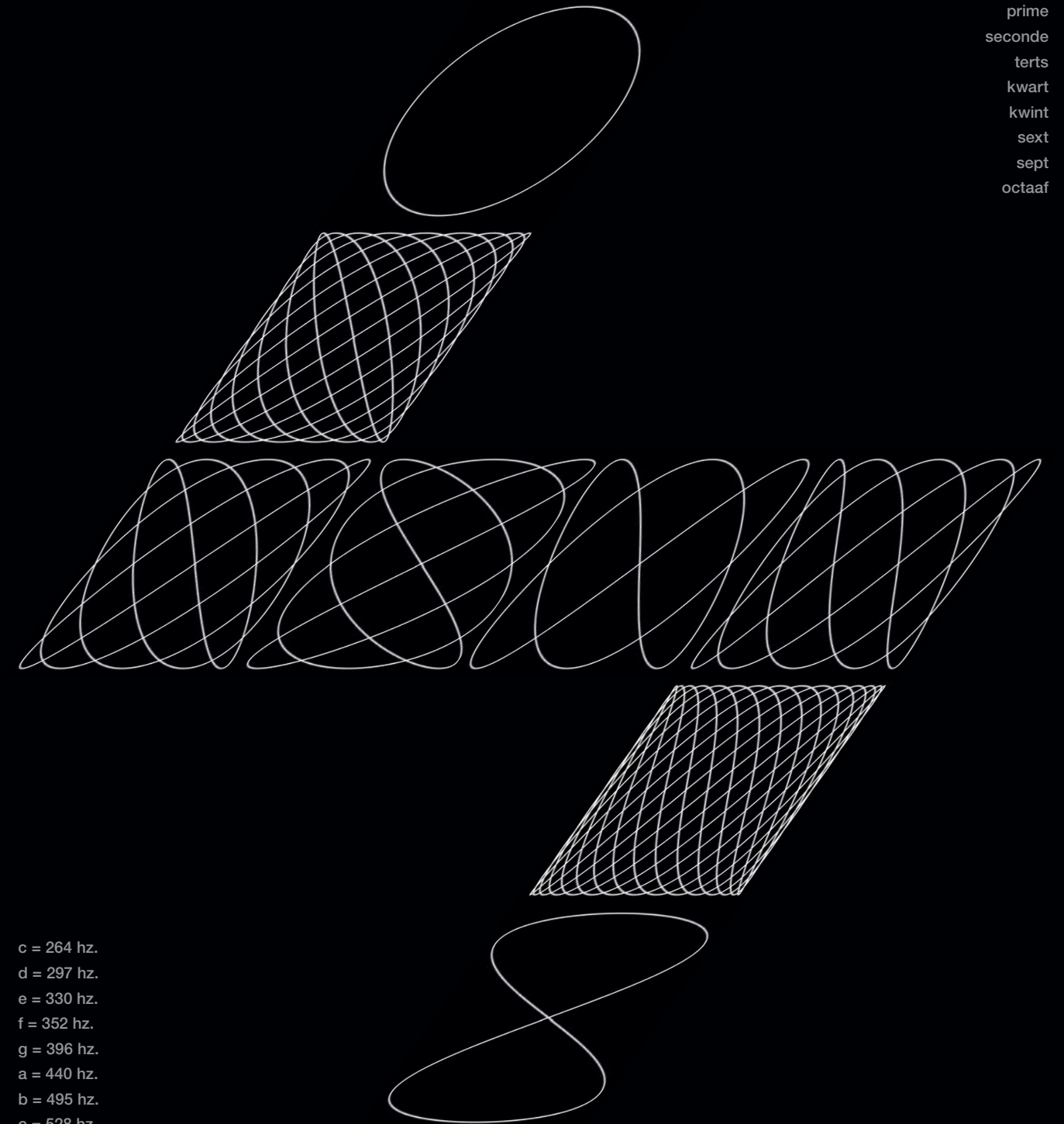




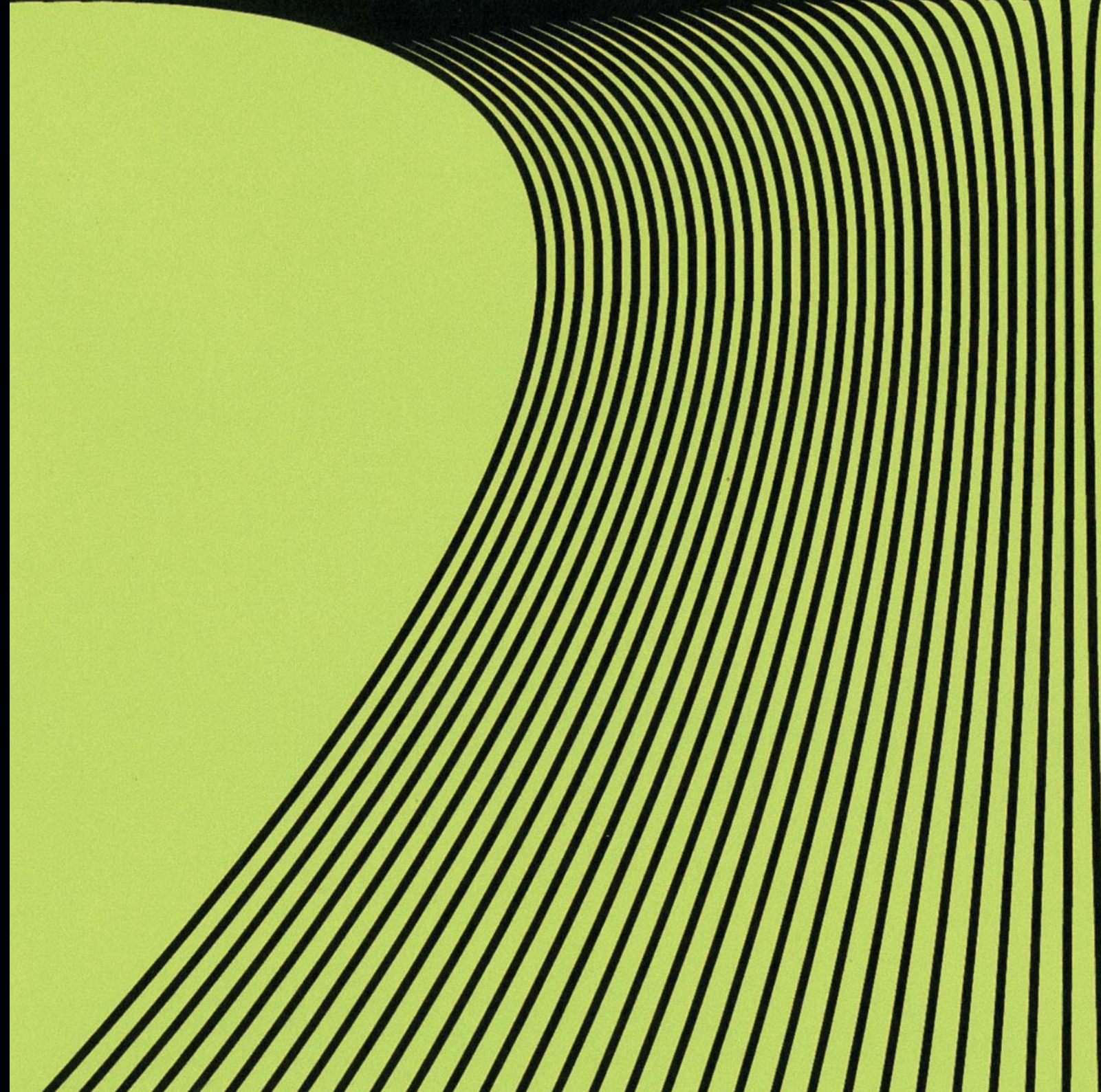
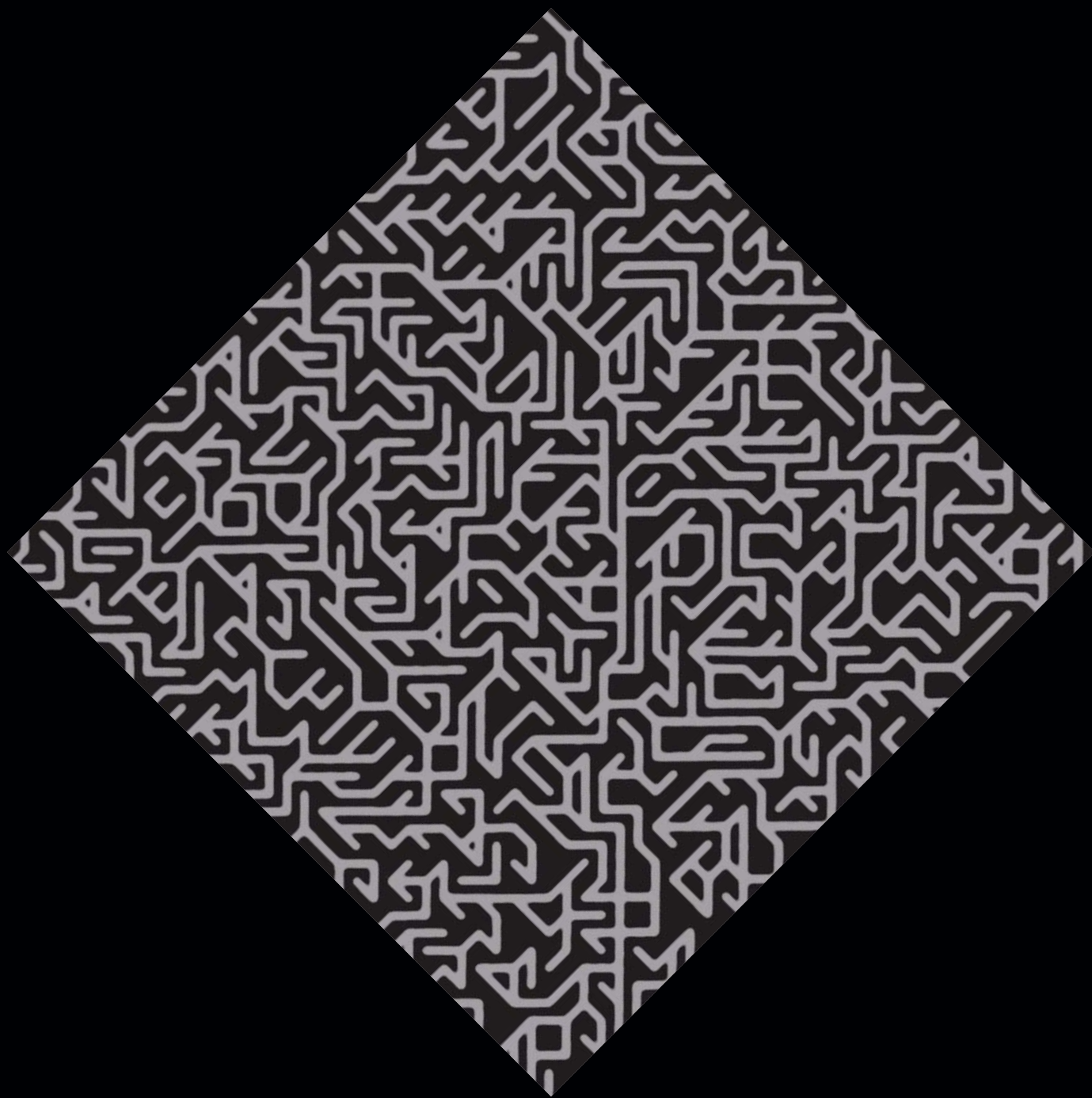


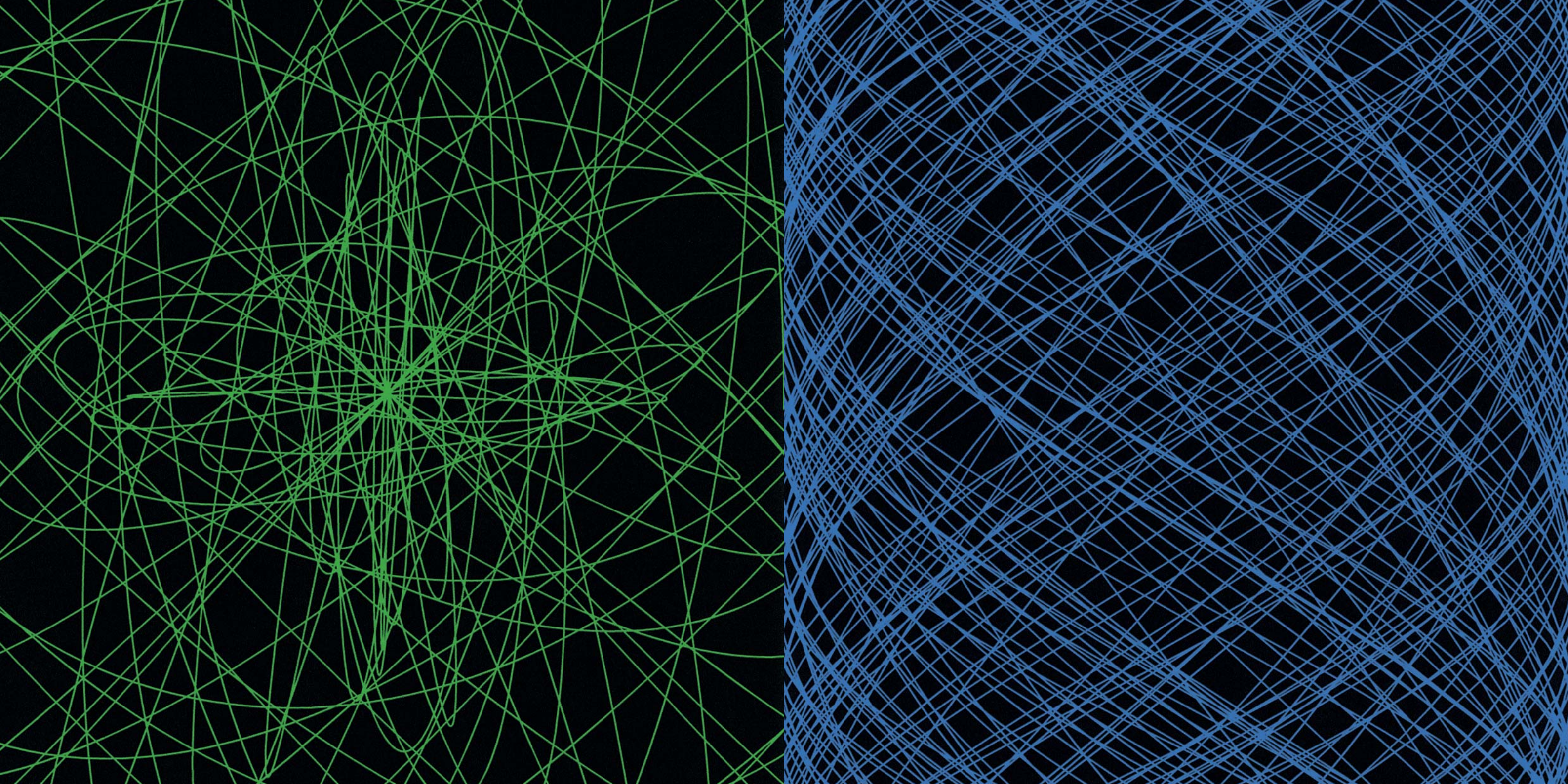


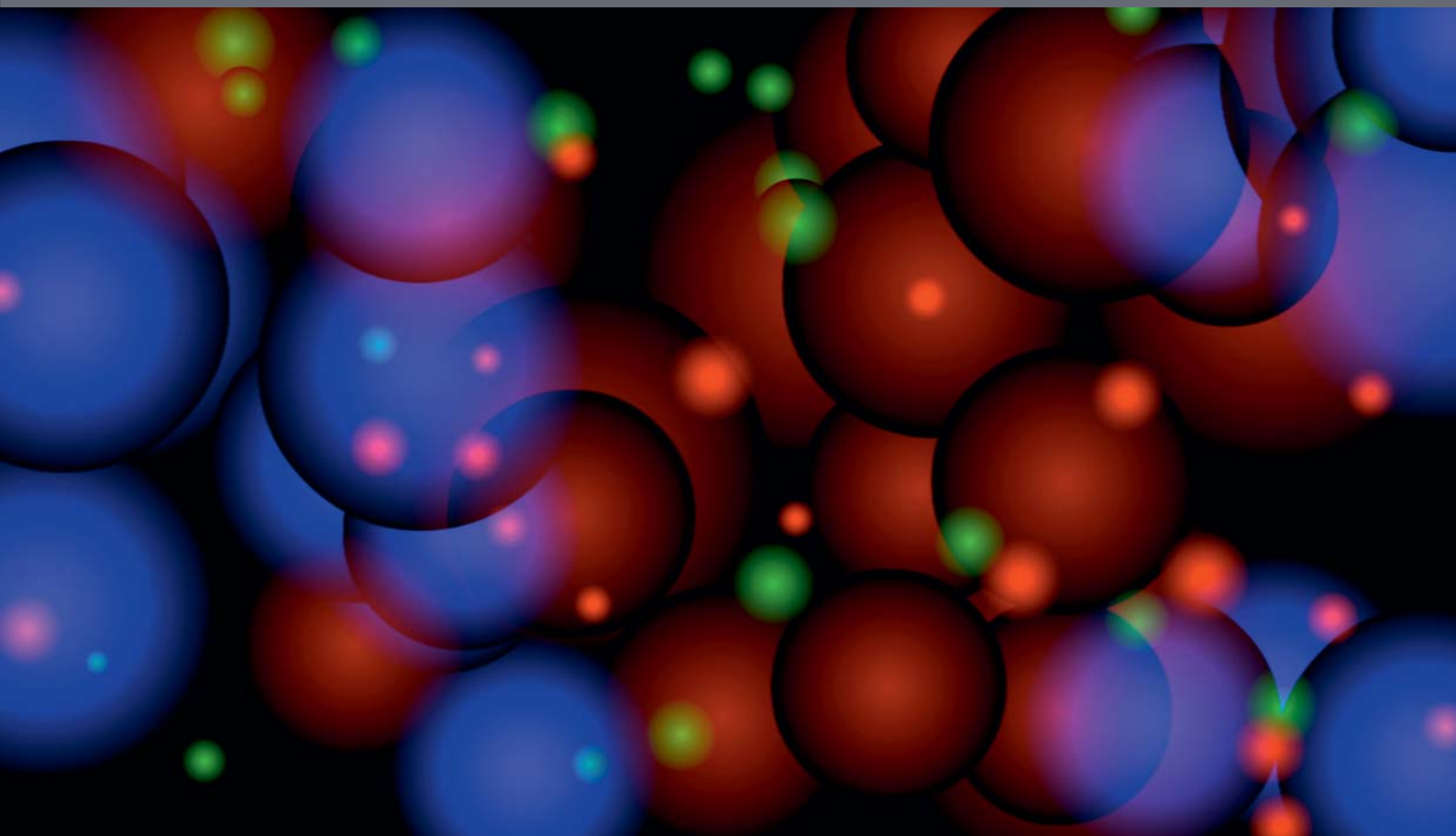
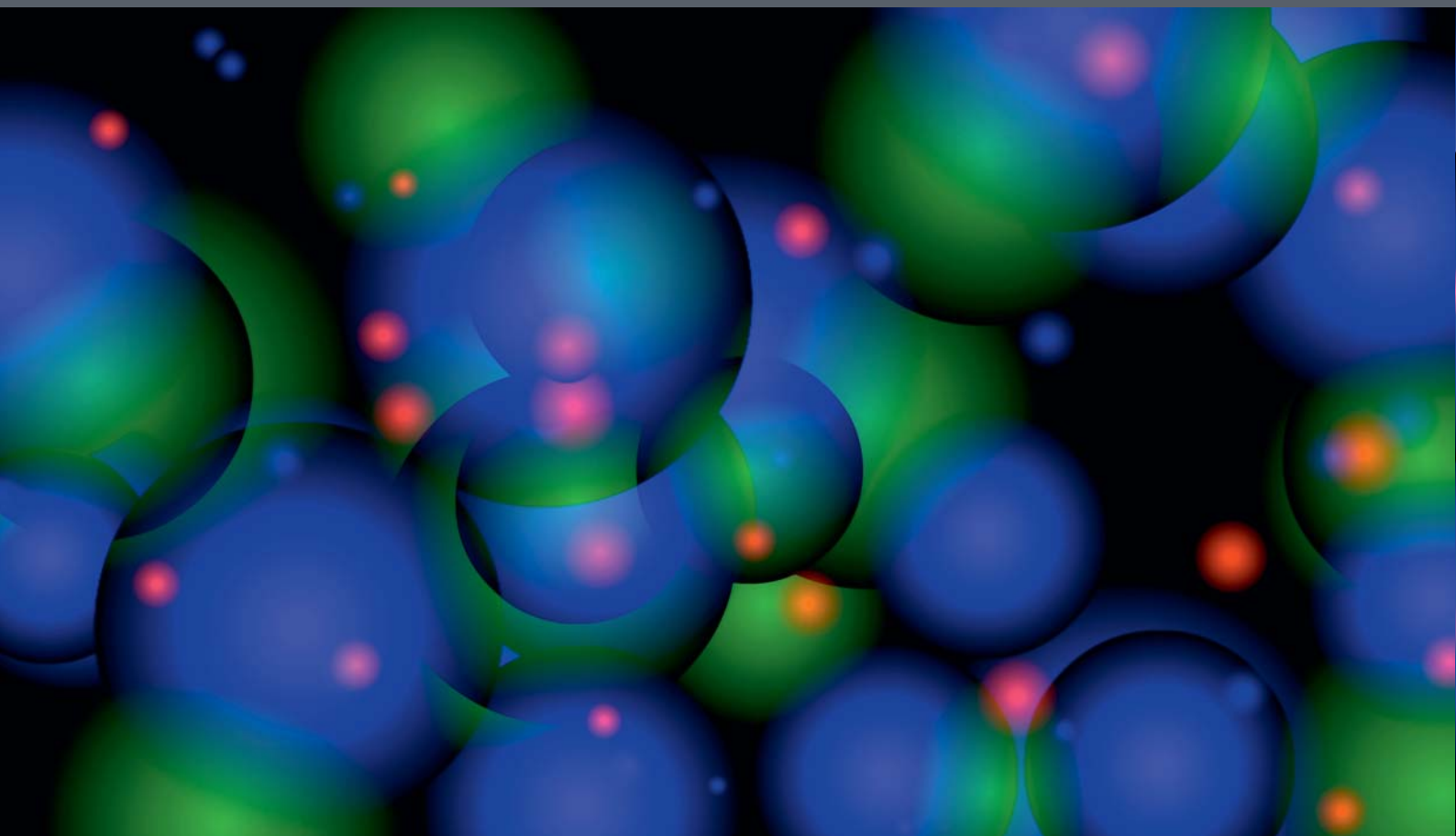
c = 264 hz.
d = 297 hz.
e = 330 hz.
f = 352 hz.
g = 396 hz.
a = 440 hz.
b = 495 hz.
c = 528 hz.

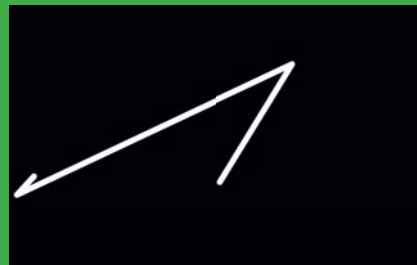
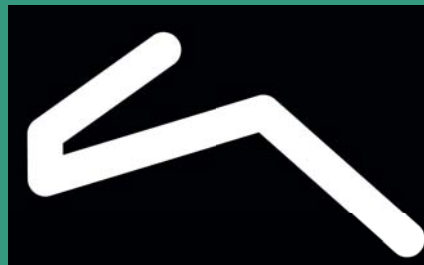
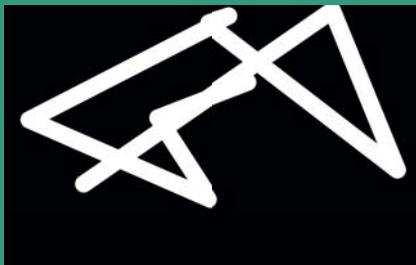
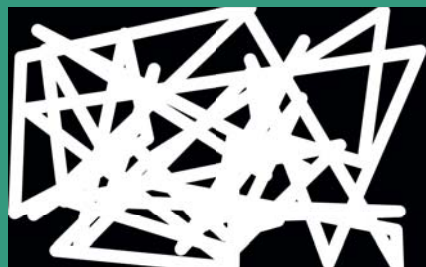
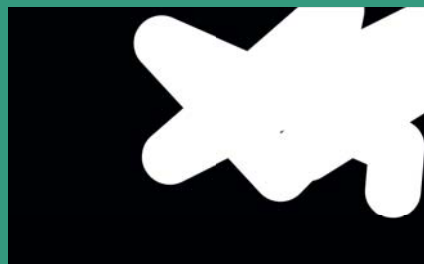
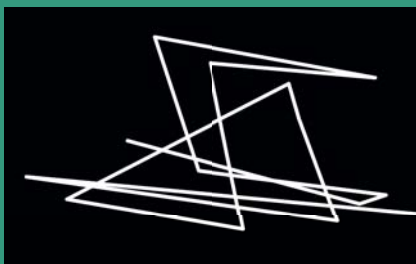


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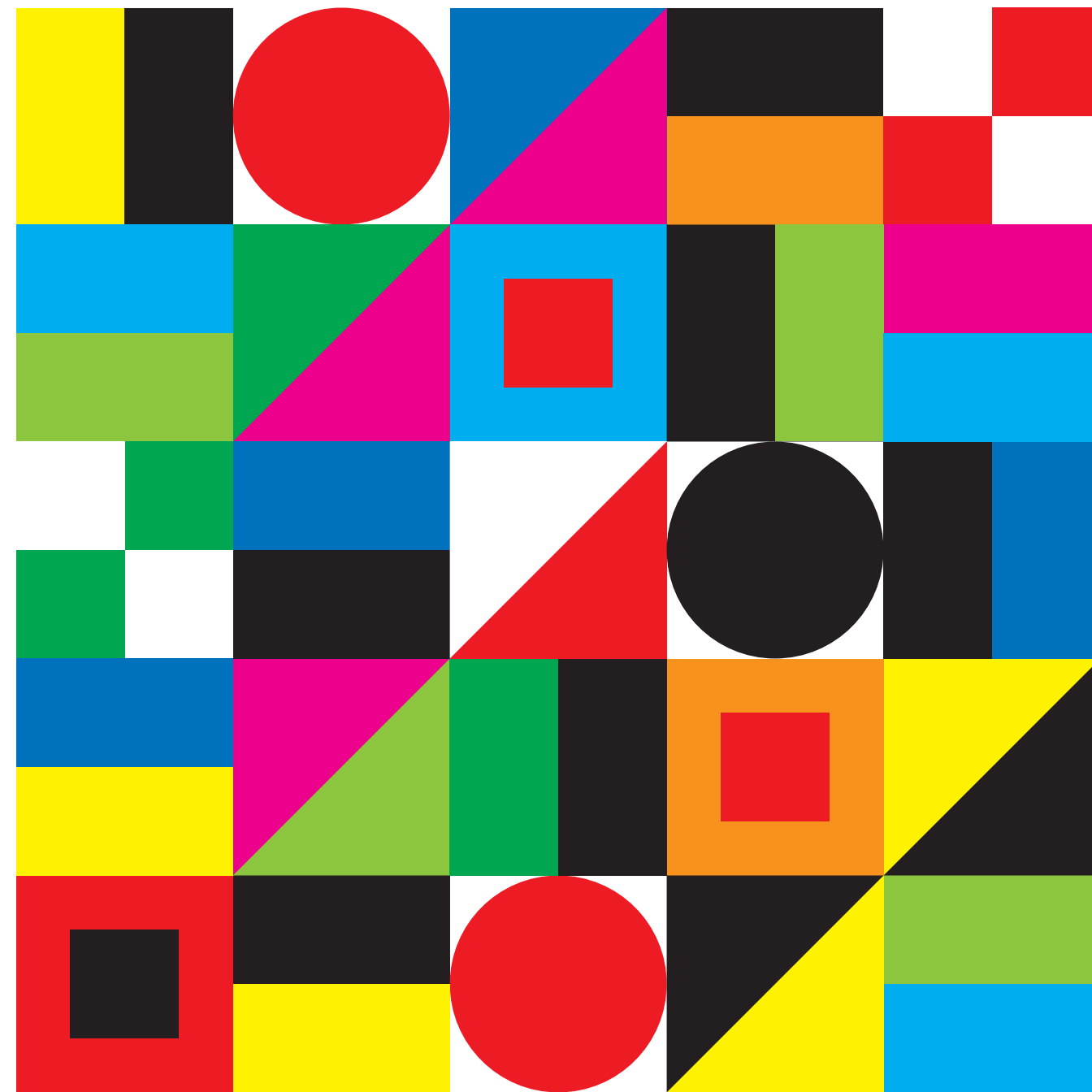
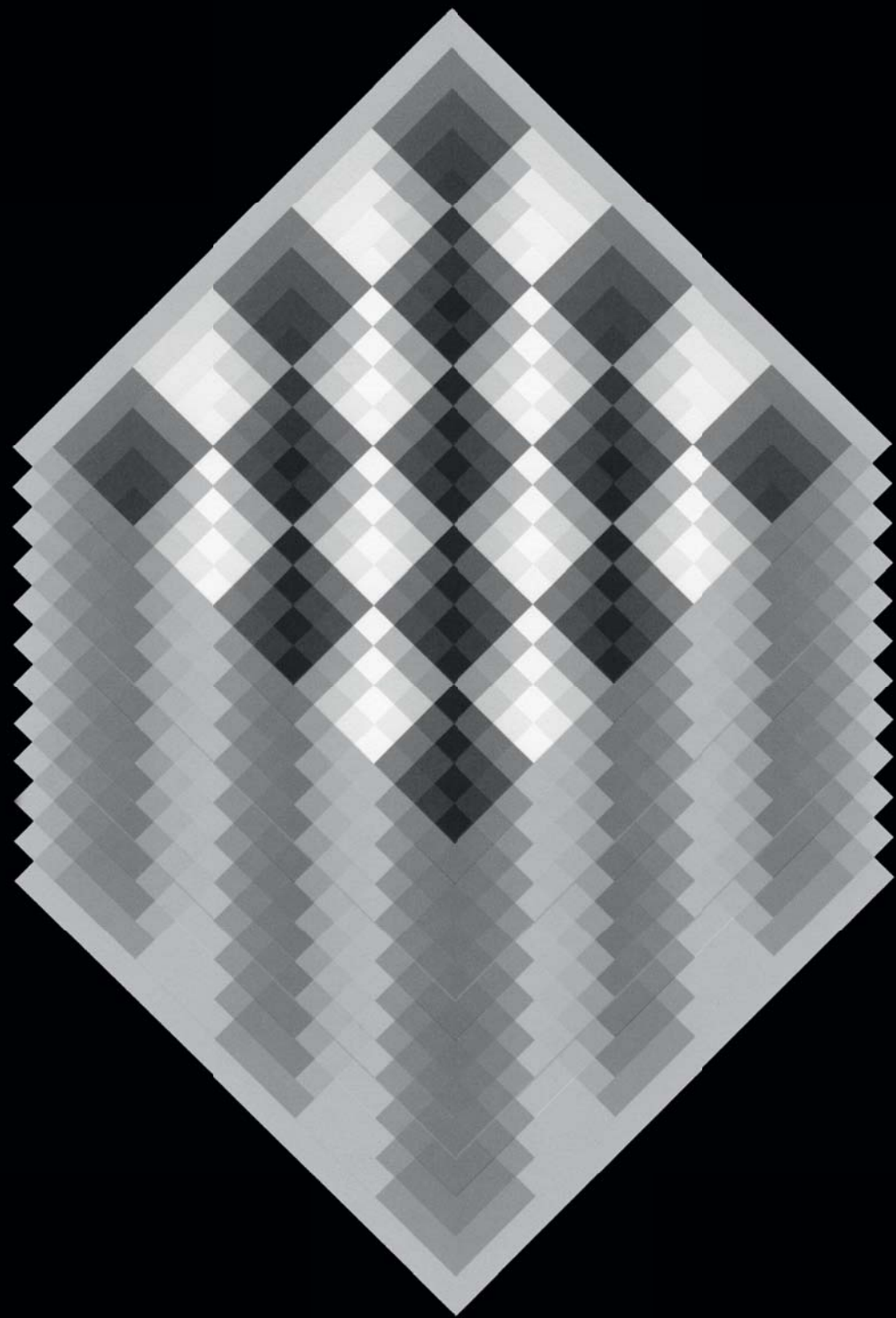


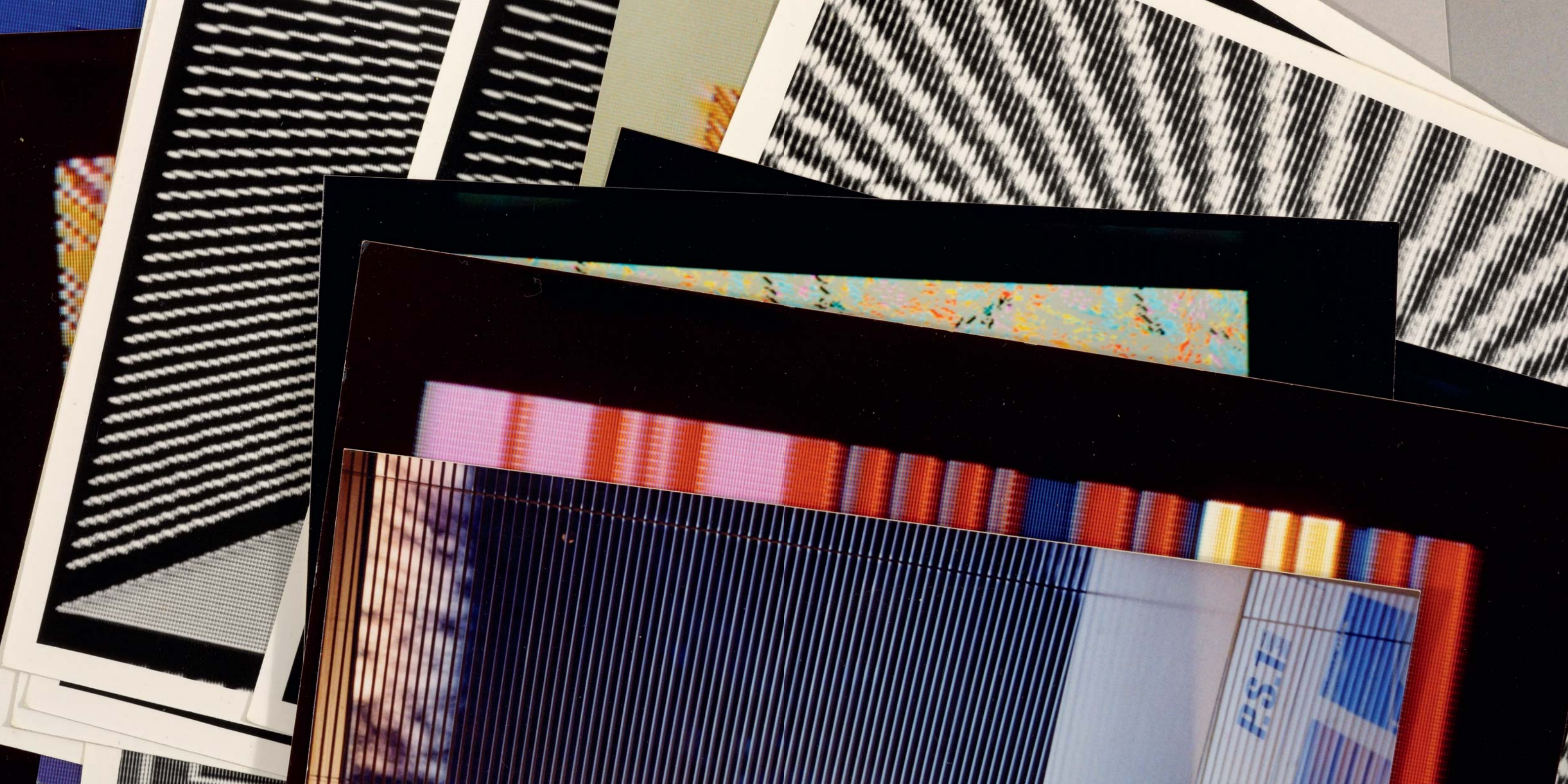












Als jongen was Jelle Hellinga (1952) geïnteresseerd in elektriciteit. Een elektrische trein was interessanter dan een stoomlocomotief. Hij leerde veel uit hobbyblaadjes en experimenteerde met de radio en de bandrecorder thuis. Zo spijbelde hij vier dagen om faseverschuivingen in geluid te fabriceren en later bouwde hij een echoveer in de radio van zijn vader. Ook televisie fascineerde hem, hij merkte hij dat je het beeld kunt vervormen door er een magneet bij te houden zoals Nam June Paik al deed in 1965.

Hij studeerde in 1978 af als grafisch ontwerper op de KABK (Koninklijke Academie voor Beeldende Kunsten) in Den Haag. Een beroep dat toen nog uitgeoefend werd met trekpen en inkt, zetwerk, plakletters en repro-camera's.



In 1983 kocht hij zijn eerste computer, de ZX Spectrum van Sinclair, met de bedoeling te onderzoeken hoe je vormen kunt maken op een digitaal apparaat. ‘Ik wil de computer laten dromen’, meldde hij een van zijn opdrachtgevers.

Zo’n computer had geen geheugen, werd aangesloten op de kleuren-tv, het toetsenbord bestond uit rubberen vlakjes en systeem en output werden bewaard op een cassettebandje. Het apparaat werd geladen met het programma Basic, en daarin kon Jelle vormen programmeren. De vroege werken uit dit boekje zijn gefotografeerd van het televisiescherm en in eigen donkere kamer afgedrukt. Eén ervan, een vierkante spiraal die aan het eind uit de hand loopt,

heeft hij gebruikt op het omslag van het jaarverslag van 1984 van de werkgevers in de metaal- en elektro industrie, FME.

Naast Basic leerde hij zichzelf ook een machinetaal, waardoor het mogelijk was sommige vormen in beweging te zetten. Een praktische toepassing van zijn computer experimenten was een tijd klok en een omrekenstelsel waarmee hij de waarden van Cibachrome in zijn donkere kamer automatisch kon omrekenen. Uit diezelfde periode dateren de dia’s van het beeldscherm die gemaakt zijn met een videocamera waarvan de kleuren overstuurd konden worden.

Een volgende stap was de aanschaf van een Amiga 1000 computer die wel 4096 kleuren zichtbaar kon maken en die ook in Basic te programmeren was. De wereld van de Amiga was nog steeds niet mainstream. Toen Jelle in Amsterdam het tekenprogramma DeLuxe Paint van Electronic Arts had gekocht, meldde de verkoper dat de dag er voor Timothy Leary ook een dergelijke aankoop had gedaan. Hij liet een Polaroid sx-70 foto ervan zien.

Vanaf dat moment werd er meer mogelijk. Je kon vormen met een scripttaal programmeren, maar ook tekenen, en die technieken combineren. Bewegende vormen werden nu makkelijker uitvoerbaar. Ook kon je transparant over elkaar tekenen. Voor de Stichting Opleidingen Metaal heeft hij een voorlichtingsfilmpje gemaakt en voor het World Wide Video Festival in Den Haag een leader.

Later volgde de Amiga 2000 en 3000, die voor het eerst enige aansluiting boden op de wereld van grafische vormgeving, door middel van Postscript. Jelle maakte al drukwerk op deze manier, hoewel de grote bedrijven erg raar aankeken tegen bestanden die per Amiga aangeleverd werden, maar ze werkten wel.

Sinds de Apple Mac breidden de mogelijkheden zich oneindig uit. Het werd het normaal om grafische vormgeving, illustratie en fotografie digitaal te vervaardigen. Met Flash en Actionscript kon Jelle toen alles animeren en omzetten in video.

Logo’s, boeken, affiches, jaarverslagen, brochures, buitenreclame en websites. Alles werd uiteindelijk mogelijk. Wat begon als spelen en experimenteren bleek gewoon bij het beroep te horen.

Mariët Herlé

