

## Supplementary information:

### Variations of metallic nanostructures formed by low-intensity ultra-short laser light across a laser spot

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#### Abstract

This Supplementary Information presents high-resolution STM images across the laser spot for the case discussed in detail in the main manuscript.

## STM IMAGES ACROSS THE LASER SPOT

Figs. 1 to 54 display the images across the laser spot labeled by their coordinates.

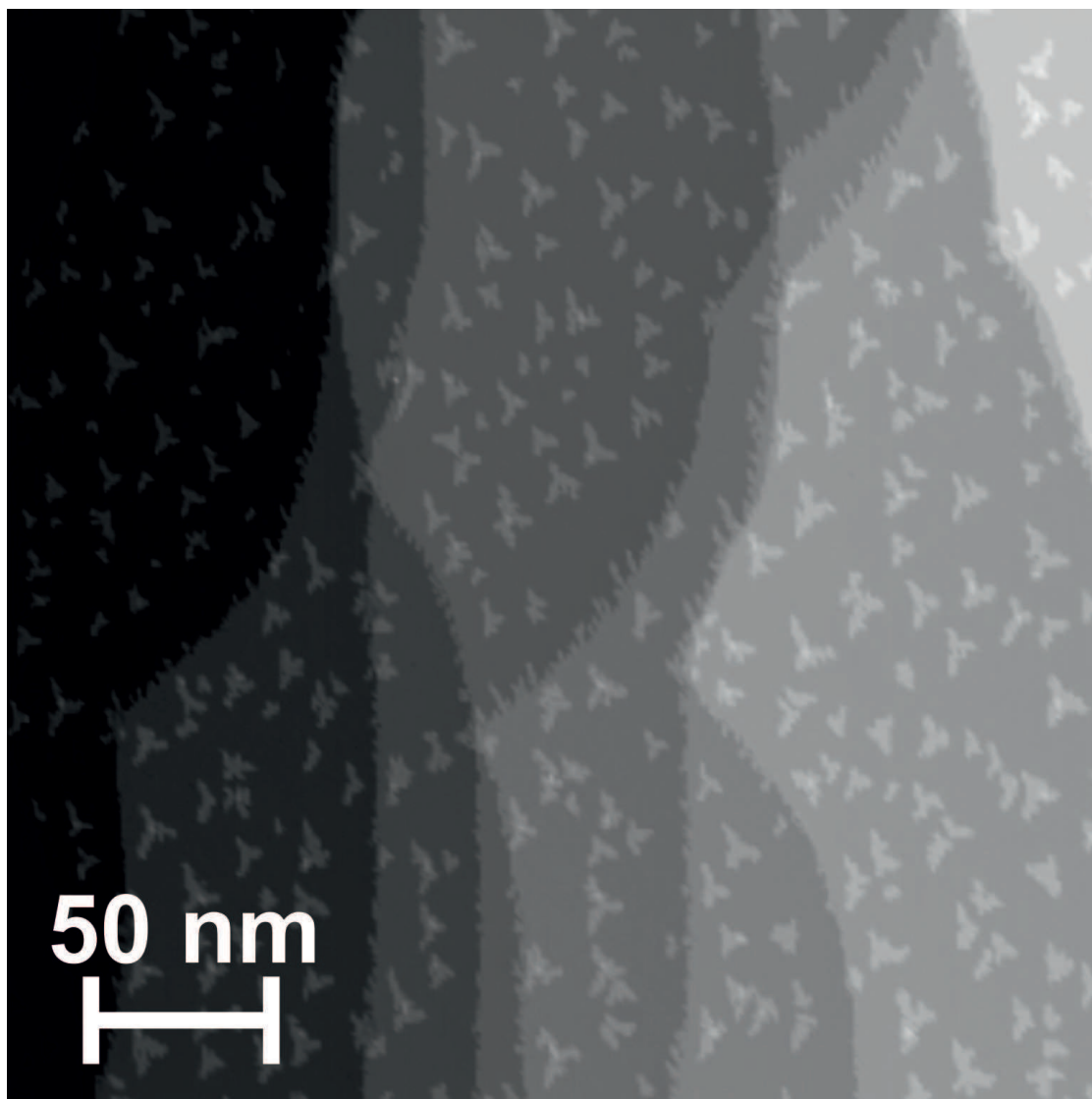


FIG. 1. Coordinates:  $x = 0$ ;  $y = 0$



FIG. 2. Coordinates:  $x = 0,2$ ;  $y = 0$

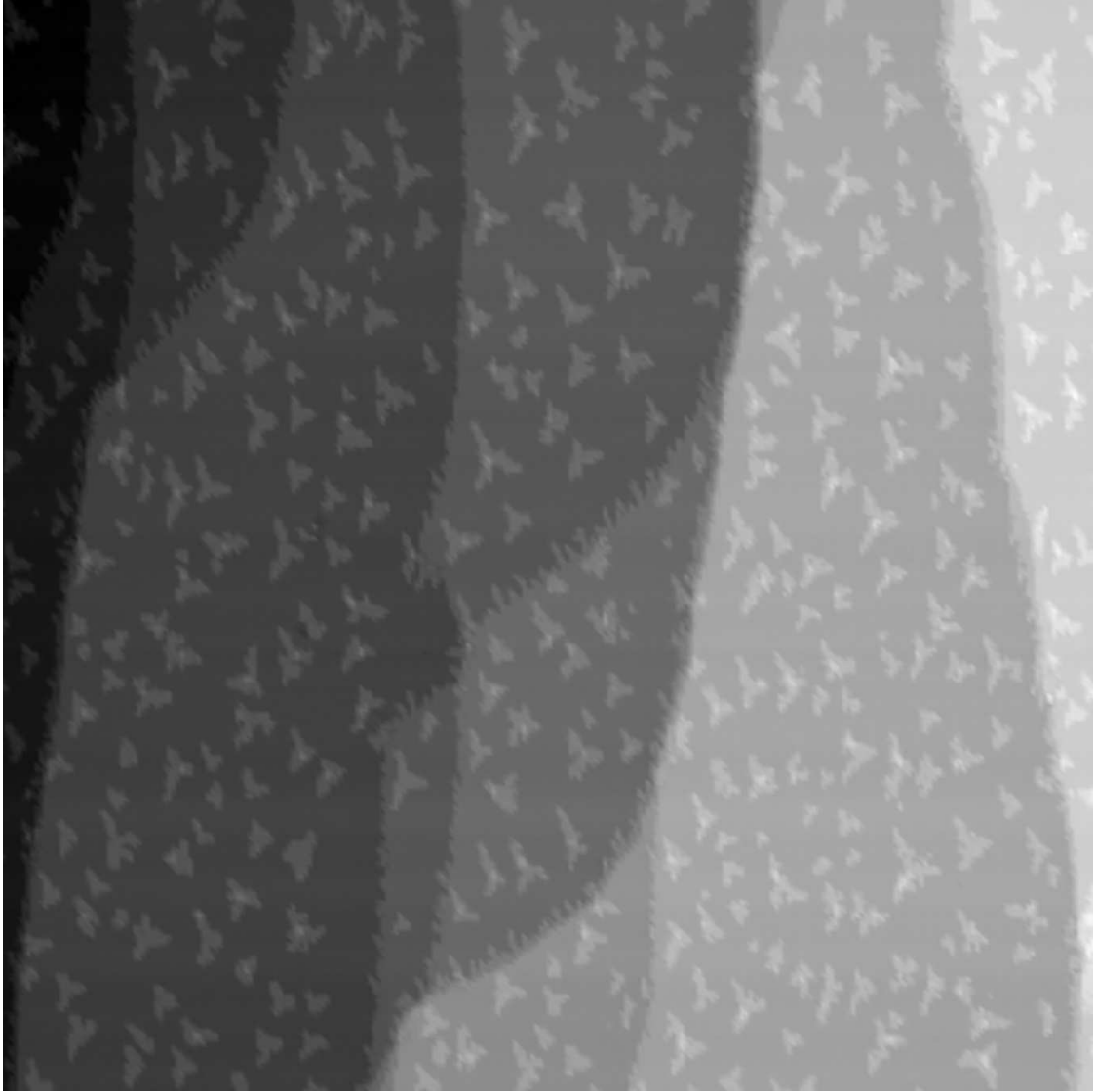


FIG. 3. Coordinates:  $x = 0,3$ ;  $y = 0,1$

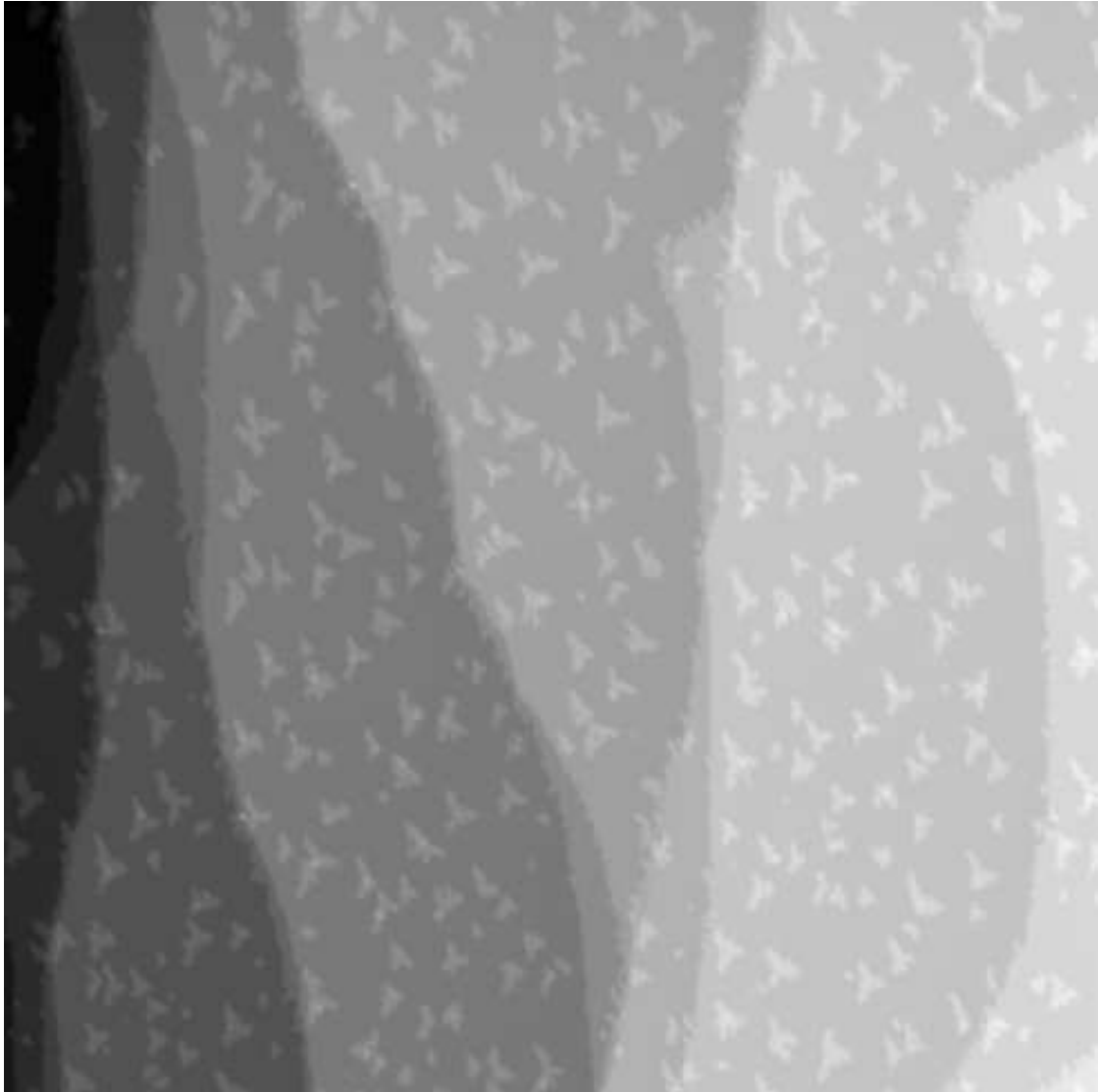


FIG. 4. Coordinates:  $x = 0,3$ ;  $y = 0,9$

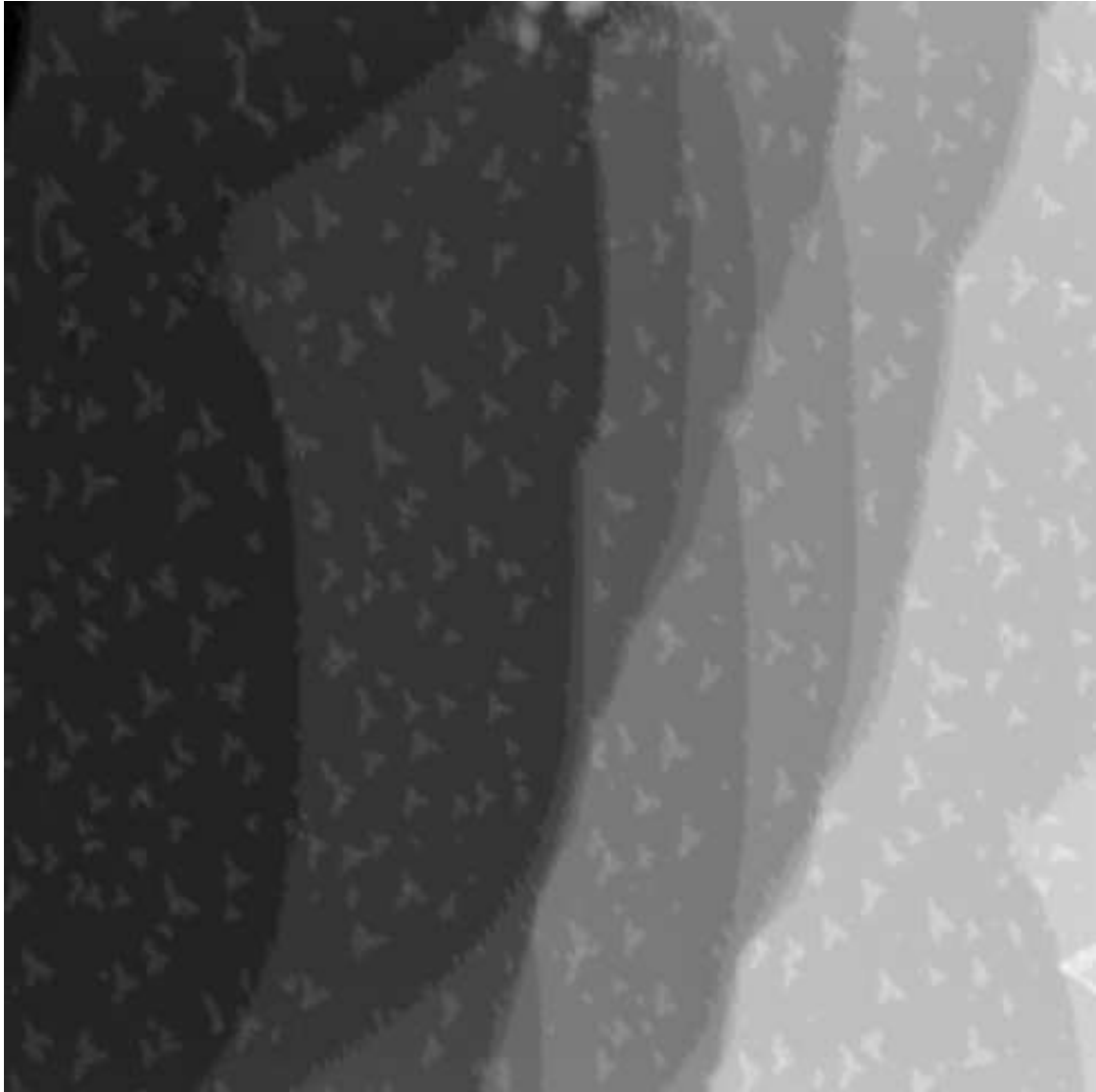


FIG. 5. Coordinates:  $x = 0,3$ ;  $y = 1,1$

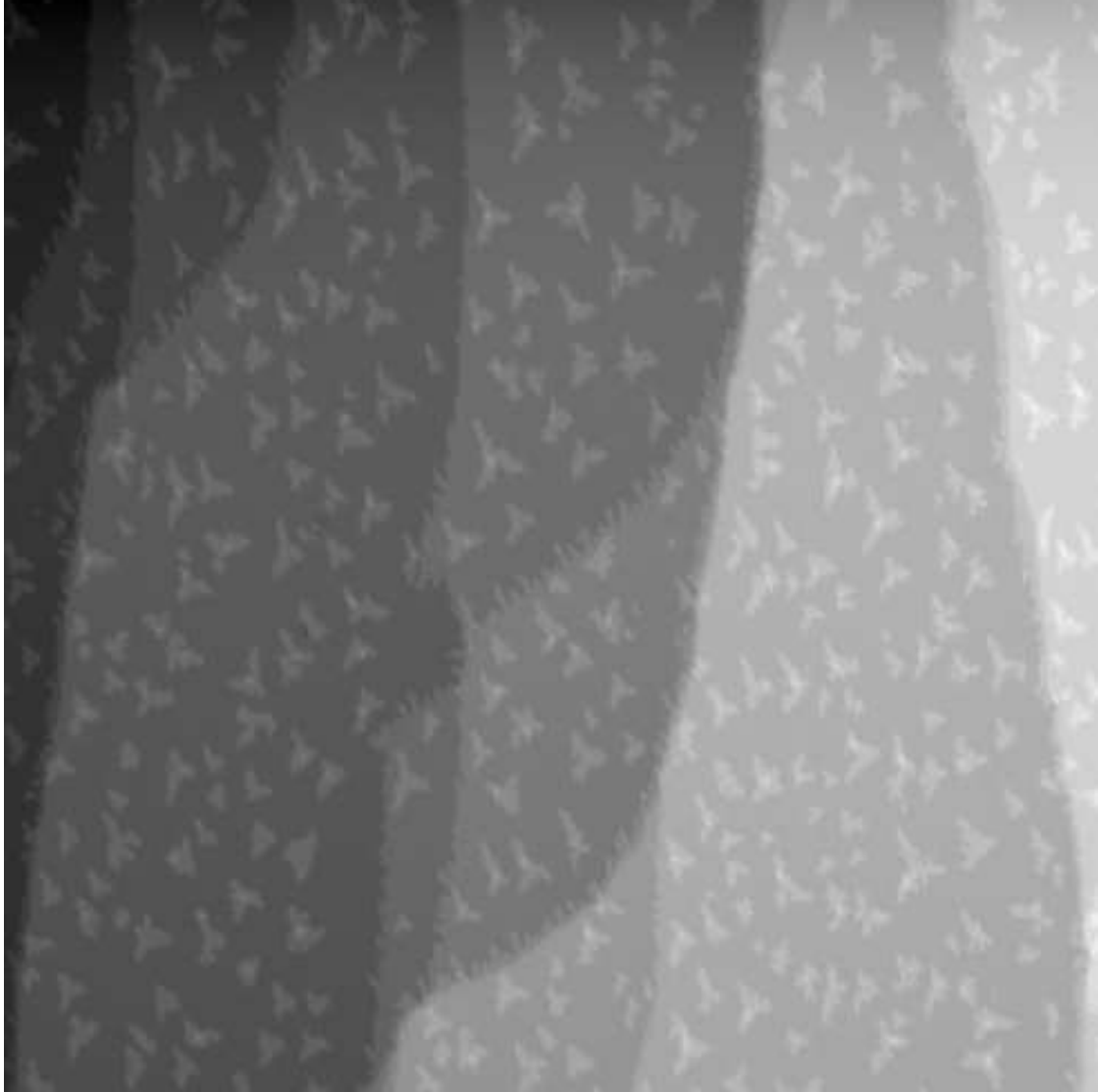


FIG. 6. Coordinates:  $x = 0,4$ ;  $y = 0,5$

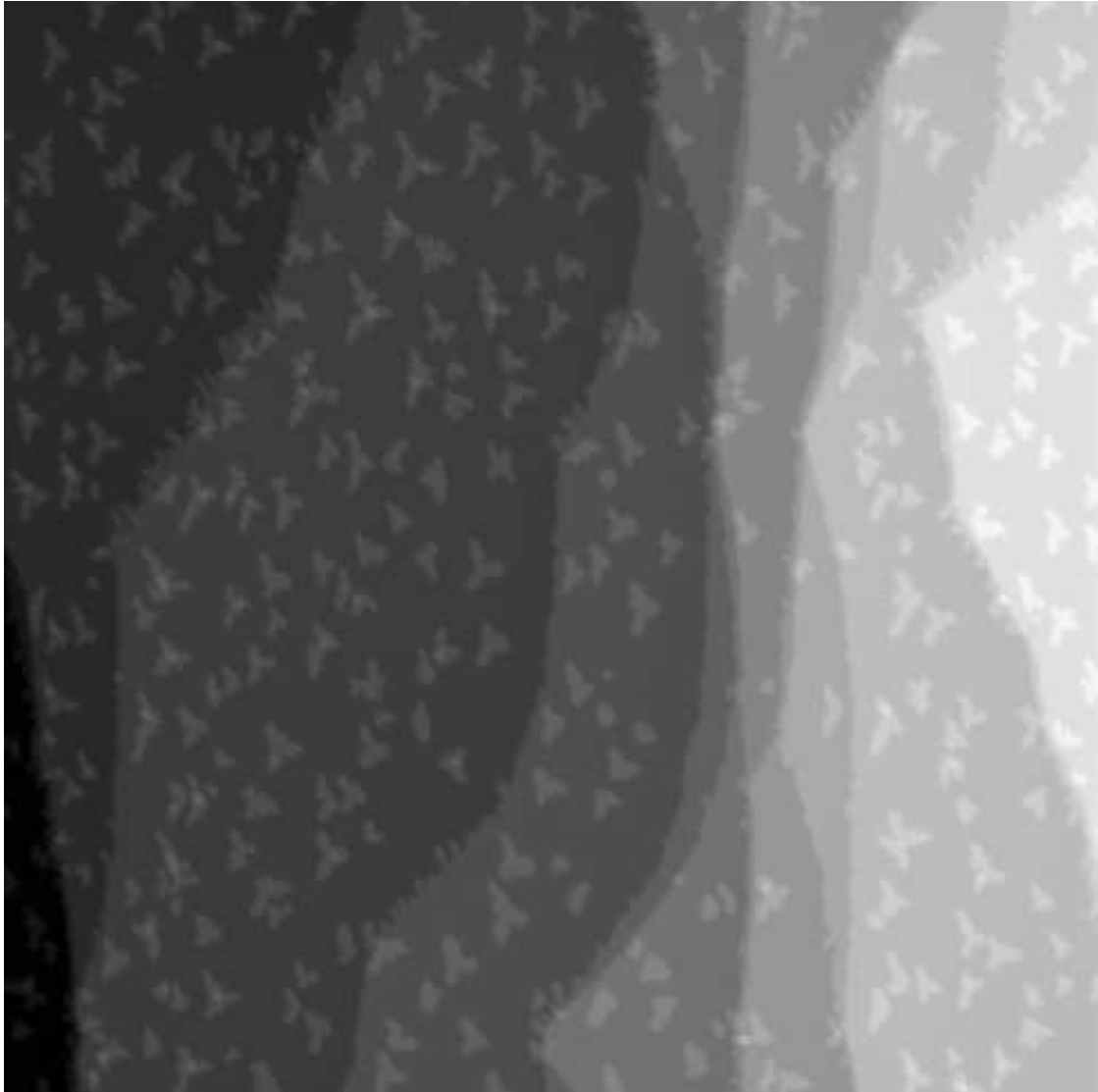


FIG. 7. Coordinates:  $x = 0,4$ ;  $y = 0,8$



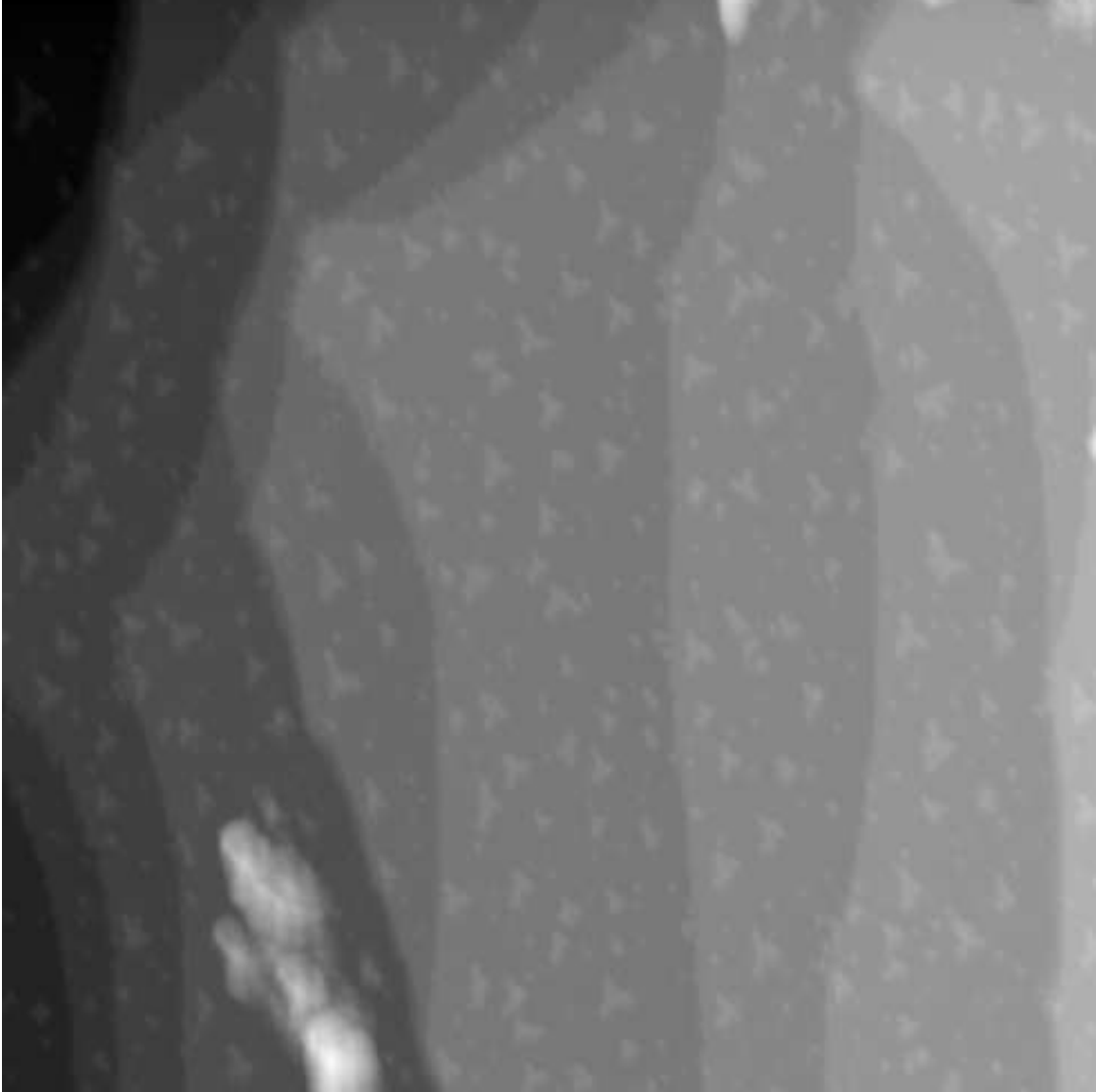


FIG. 8. Coordinates:  $x = 0,4$ ;  $y = 1,5$

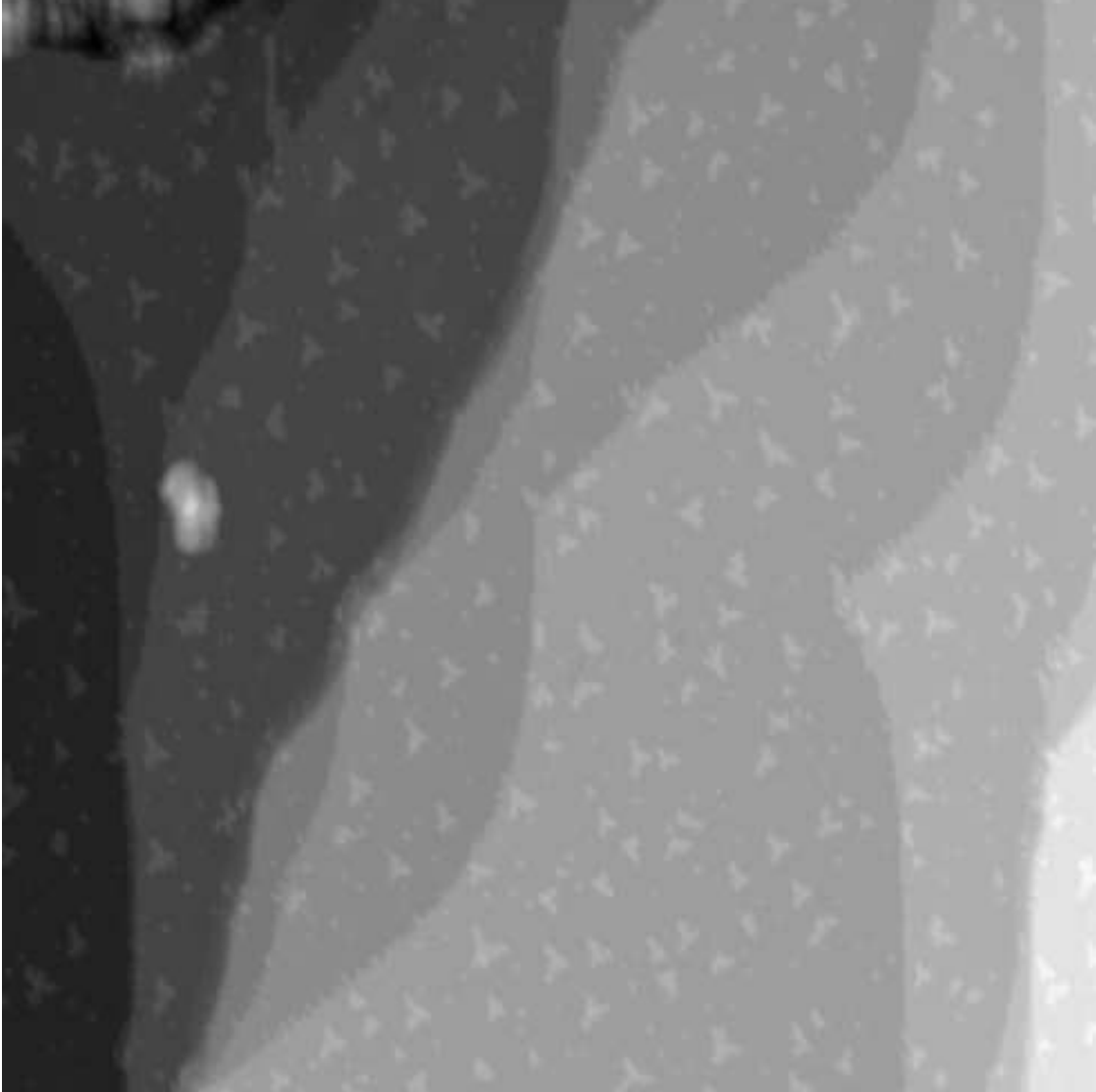


FIG. 9. Coordinates:  $x = 0,4$ ;  $y = 1,8$



FIG. 10. Coordinates:  $x = 0,5$ ;  $y = 2,0$



FIG. 11. Coordinates:  $x = 0,5$ ;  $y = 2,2$

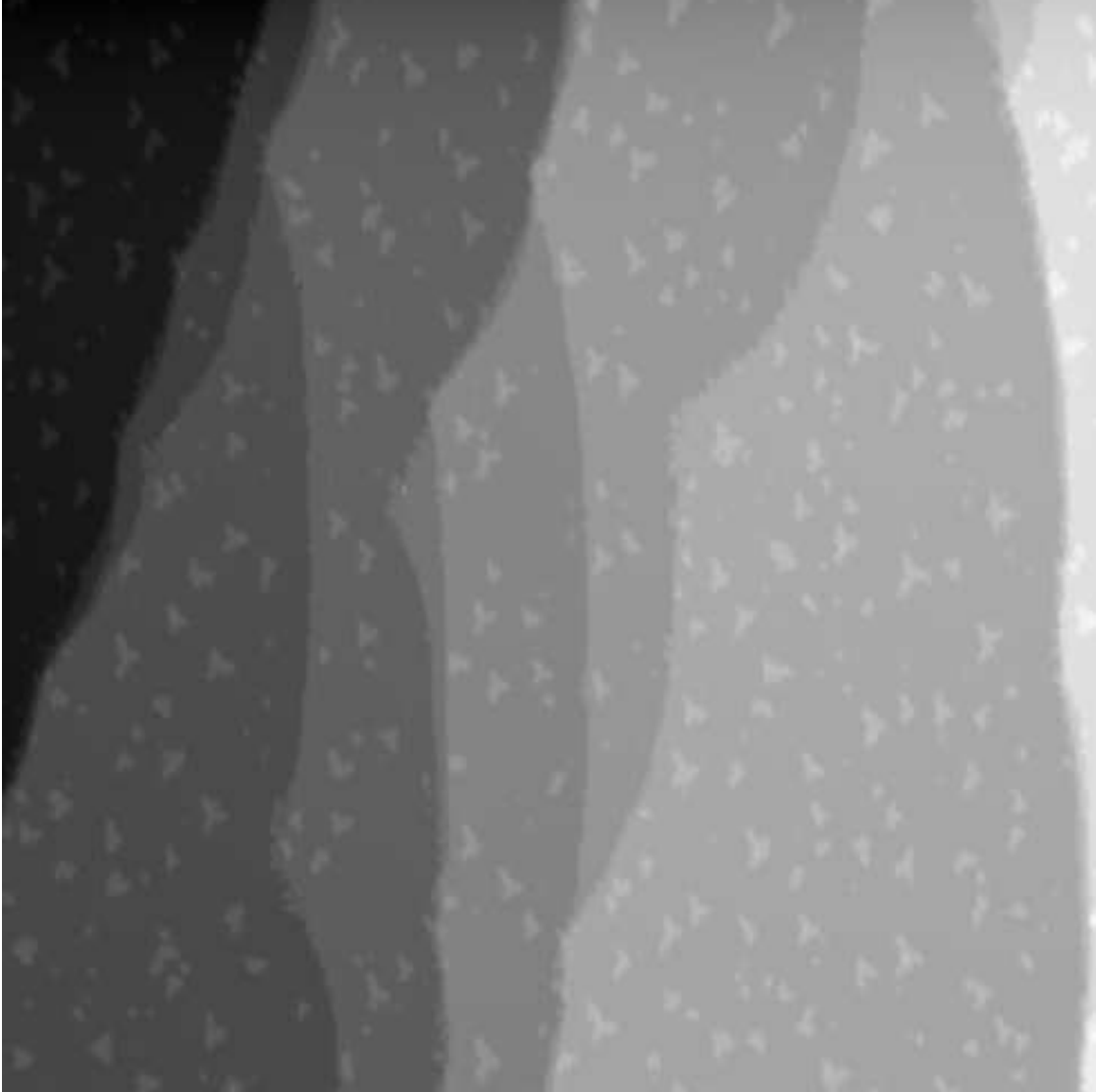


FIG. 12. Coordinates:  $x = 0,6$ ;  $y = 2,4$

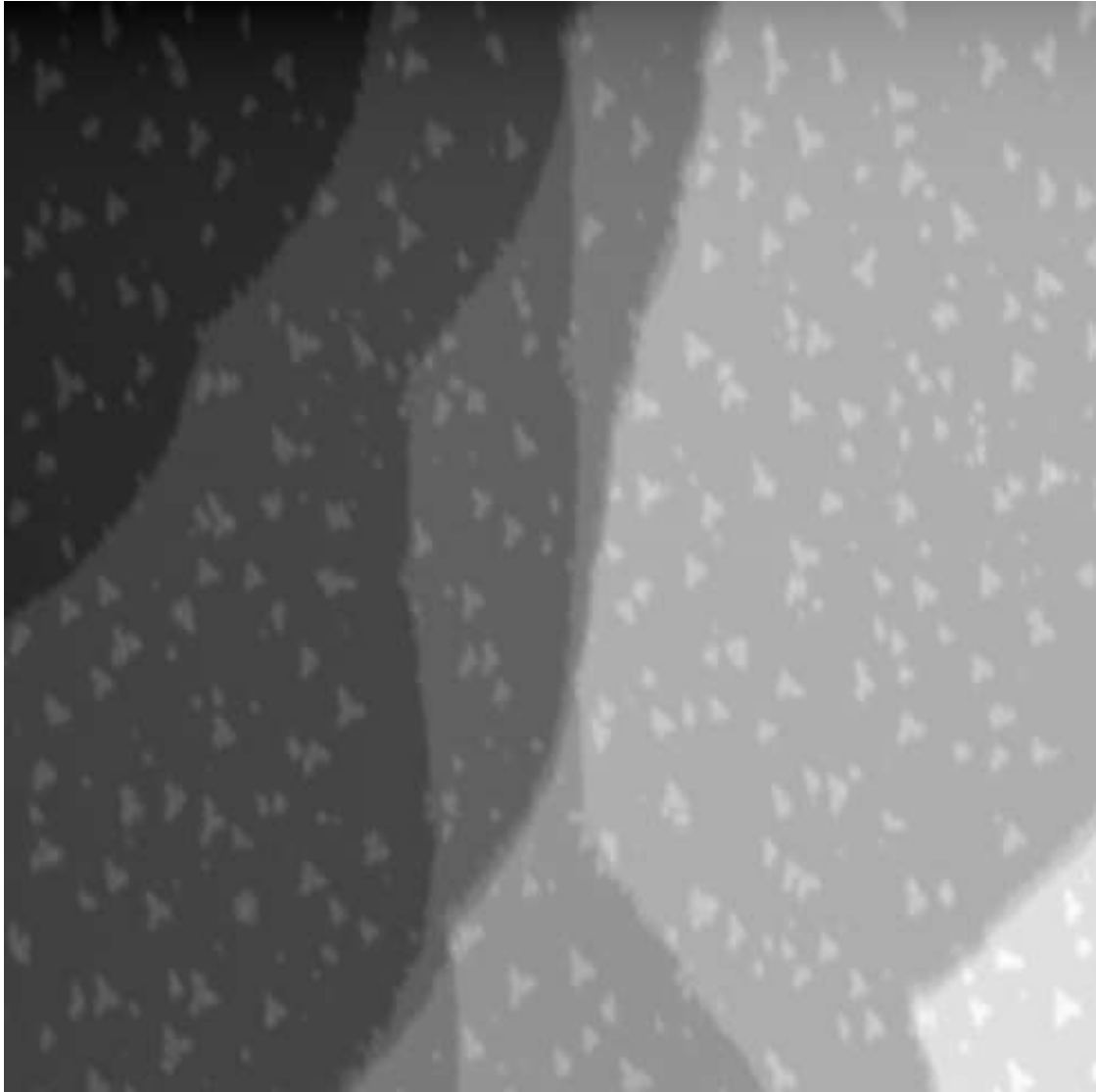


FIG. 13. Coordinates:  $x = 0,6$ ;  $y = 2,8$

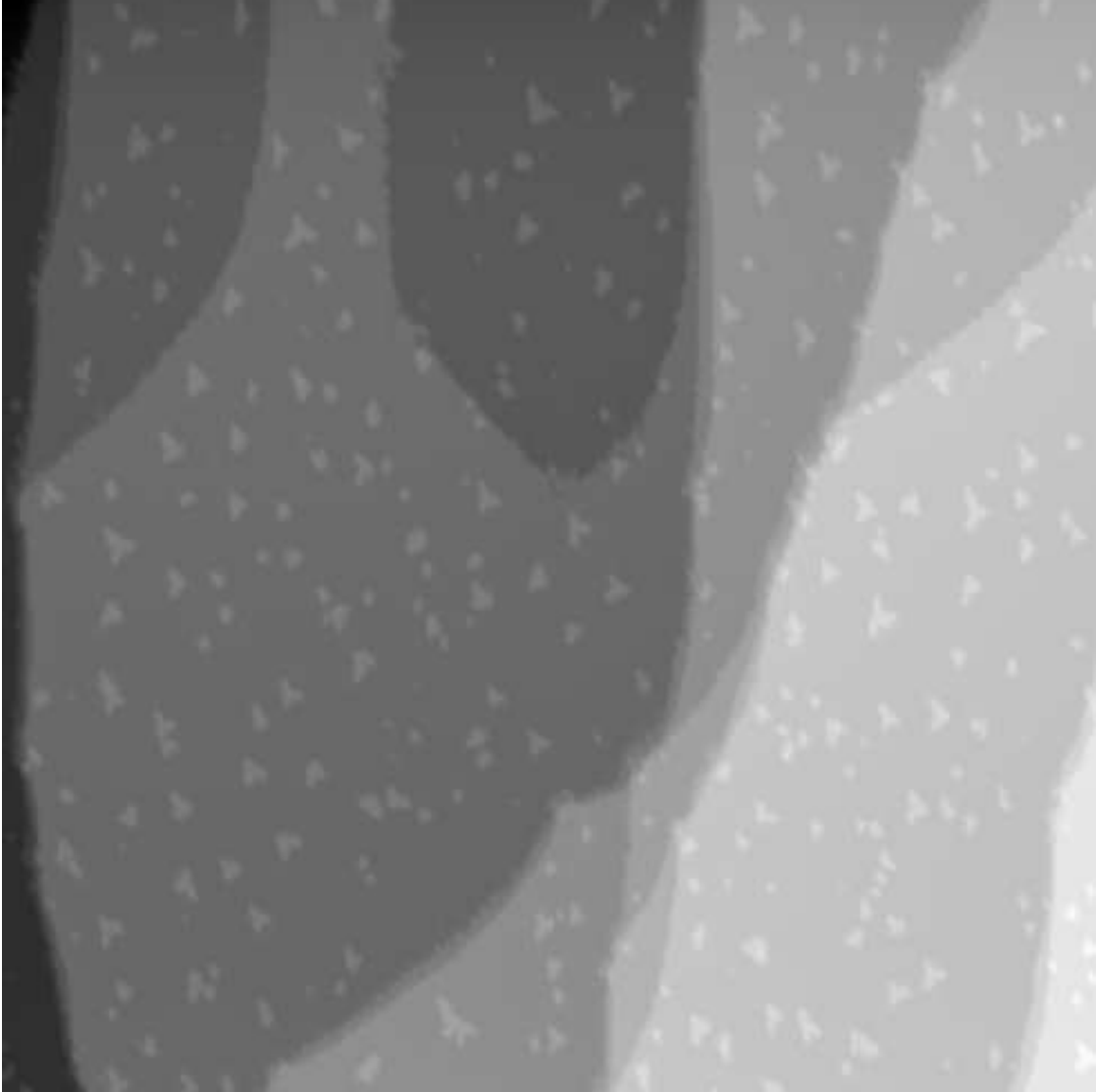


FIG. 14. Coordinates:  $x = 0,7$ ;  $y = 3,2$

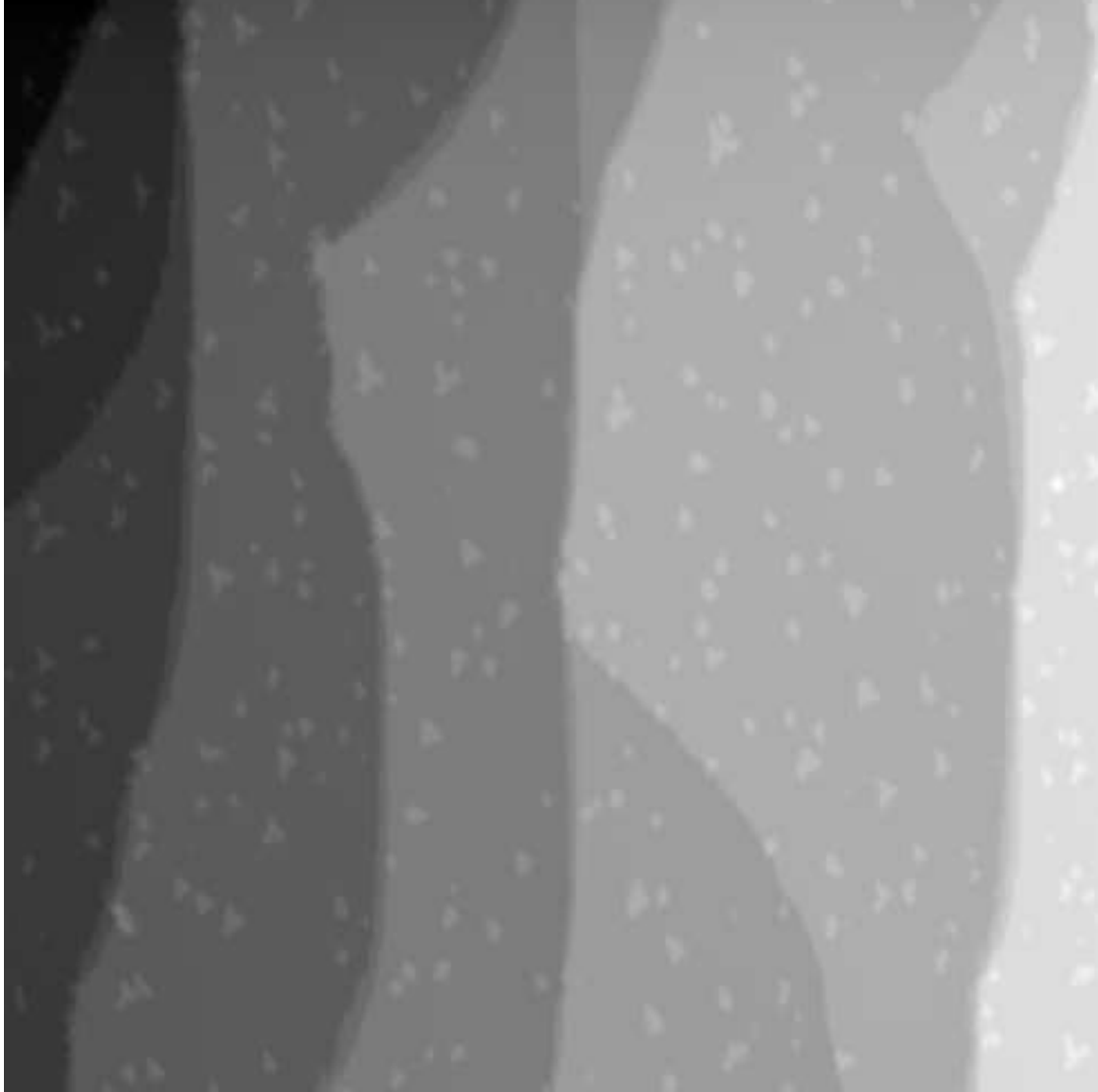


FIG. 15. Coordinates:  $x = 0,7$ ;  $y = 3,5$





FIG. 16. Coordinates:  $x = 0,8$ ;  $y = 3,8$



FIG. 17. Coordinates:  $x = 0,8$ ;  $y = 4,3$



FIG. 18. Coordinates:  $x = 0,9$ ;  $y = 0,2$

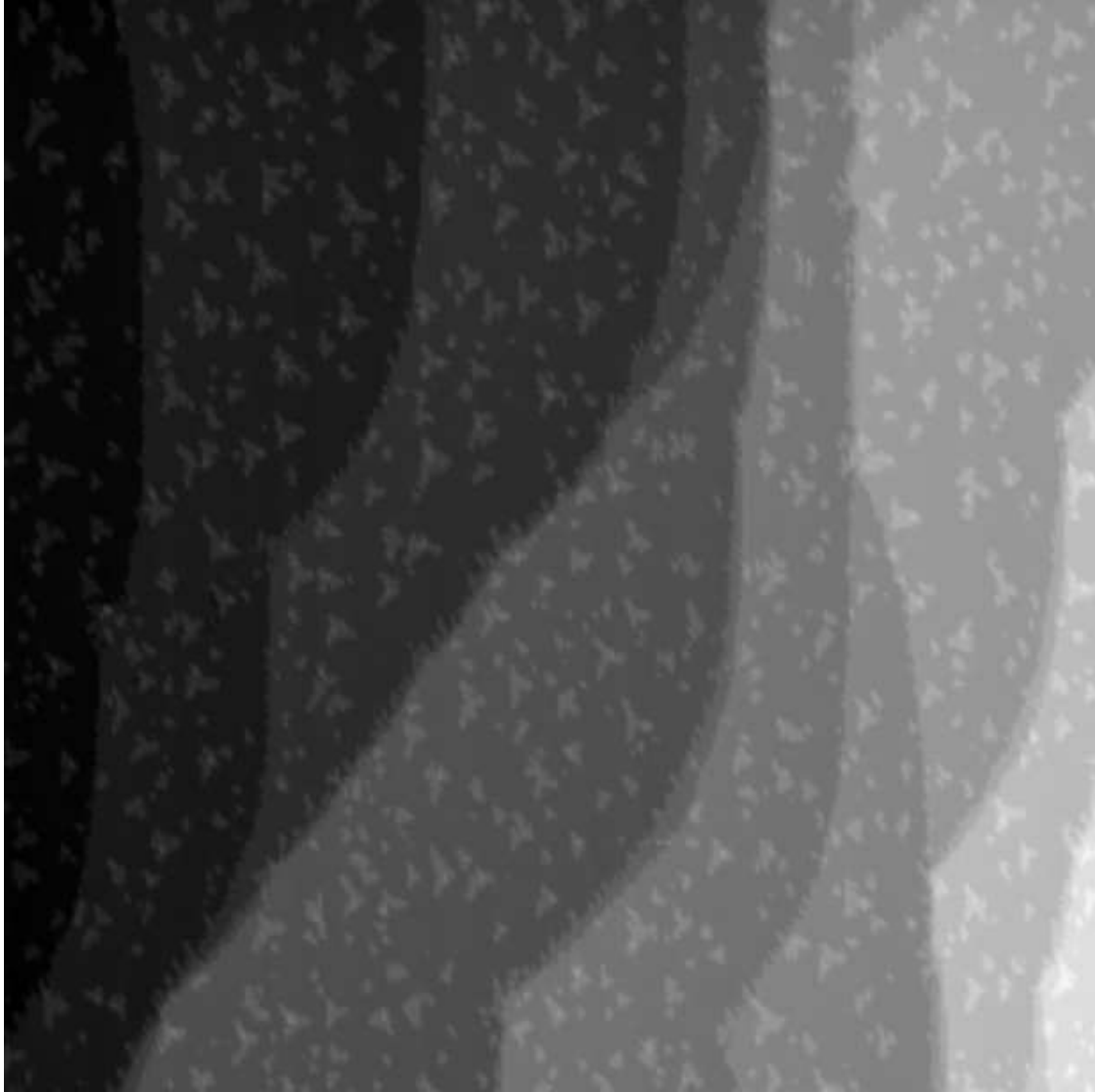


FIG. 19. Coordinates:  $x = 1,0$ ;  $y = 0,3$

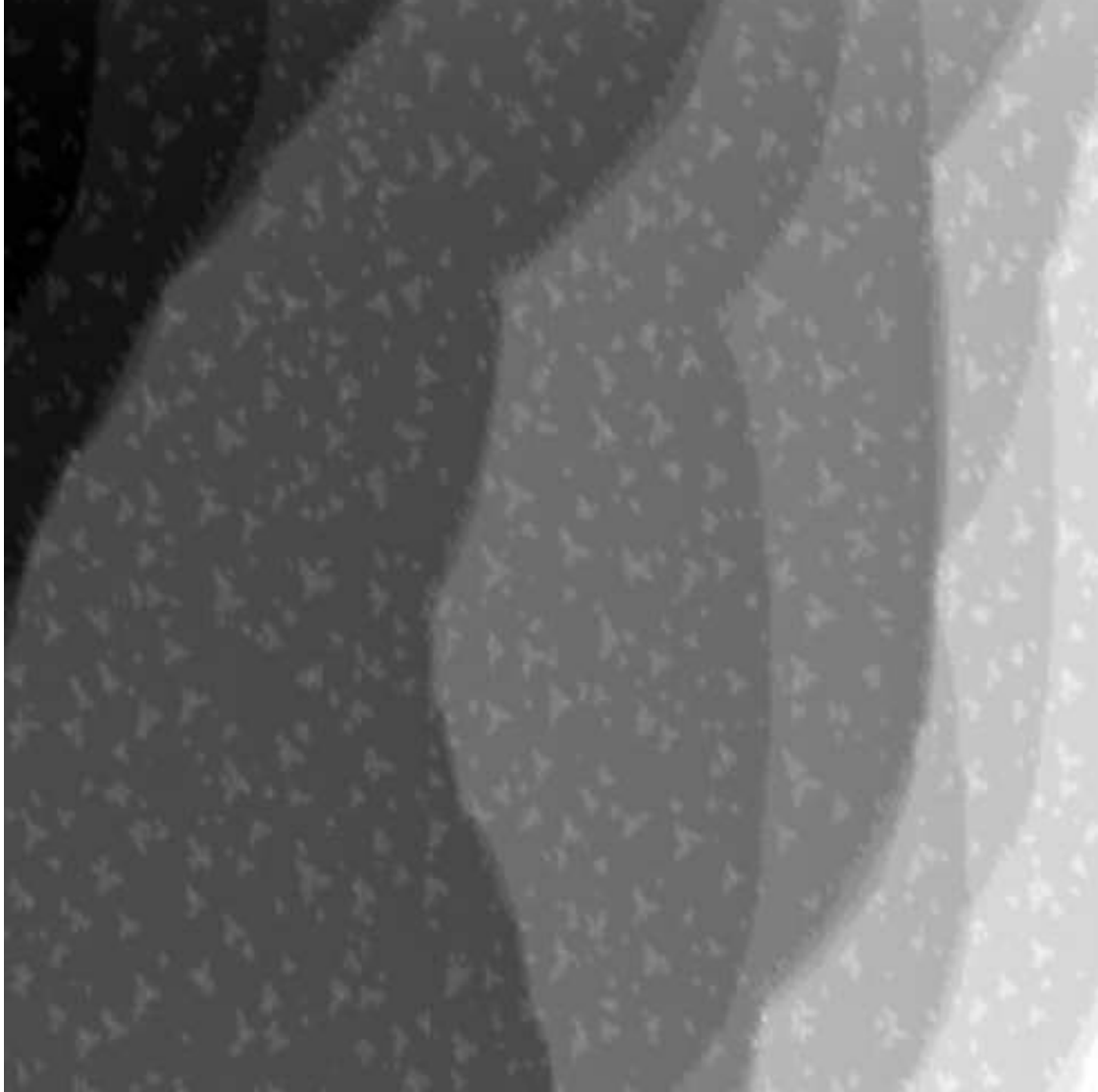


FIG. 20. Coordinates:  $x = 1,2$ ;  $y = 0,3$



FIG. 21. Coordinates:  $x = 1,4$ ;  $y = 0,2$

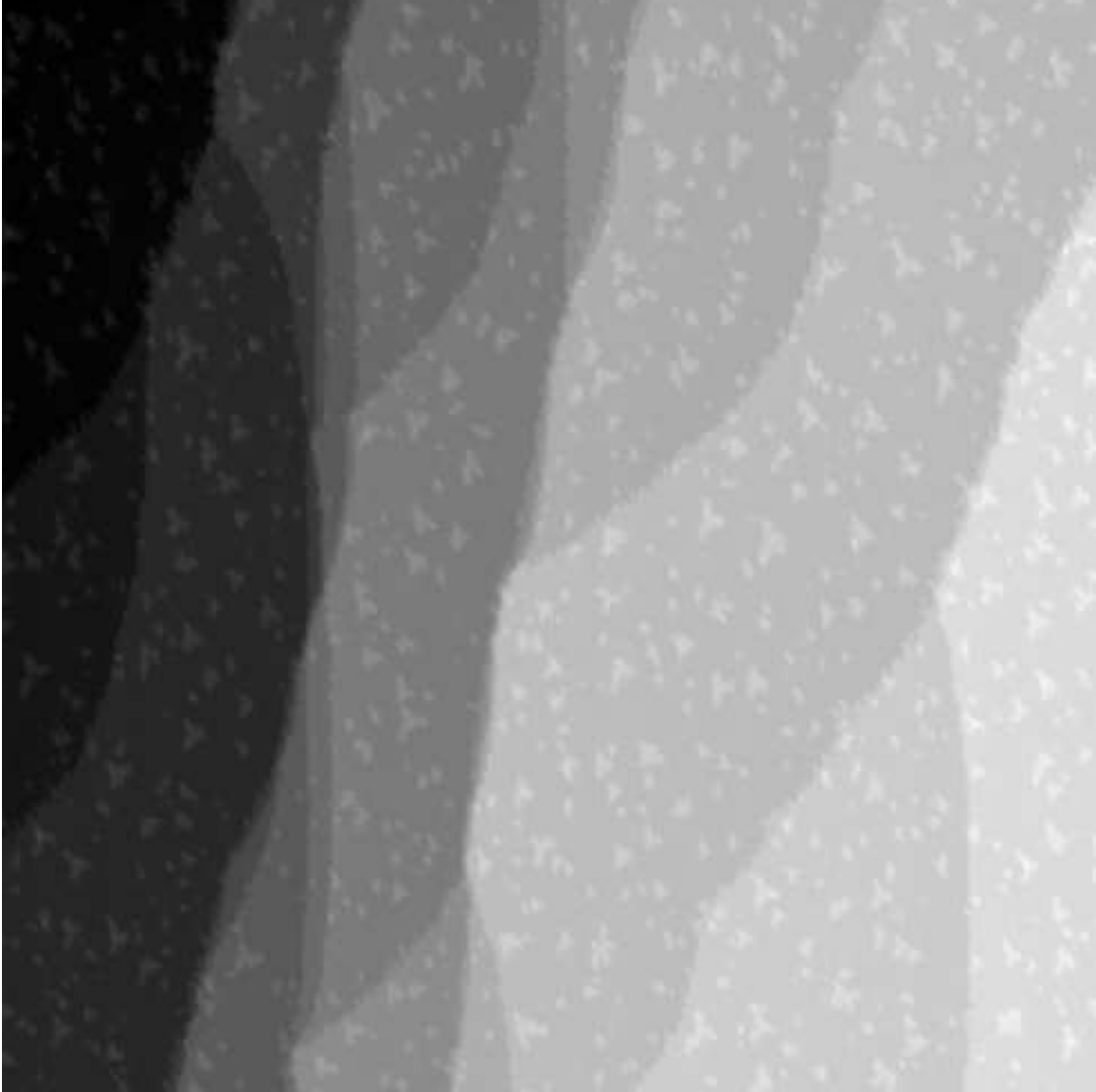


FIG. 22. Coordinates:  $x = 1,6$ ;  $y = 0,2$

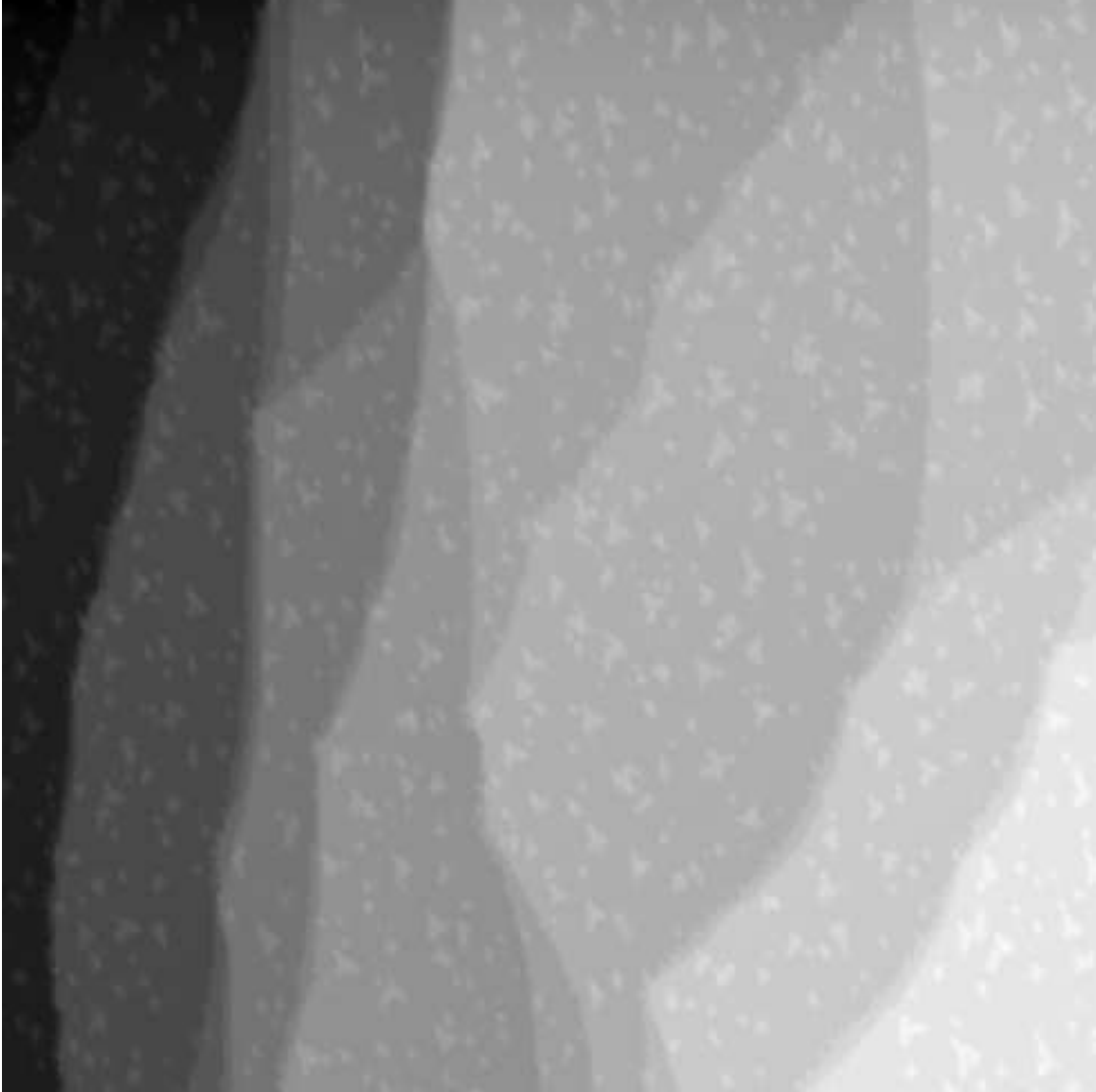


FIG. 23. Coordinates:  $x = 1,8$ ;  $y = 0,4$



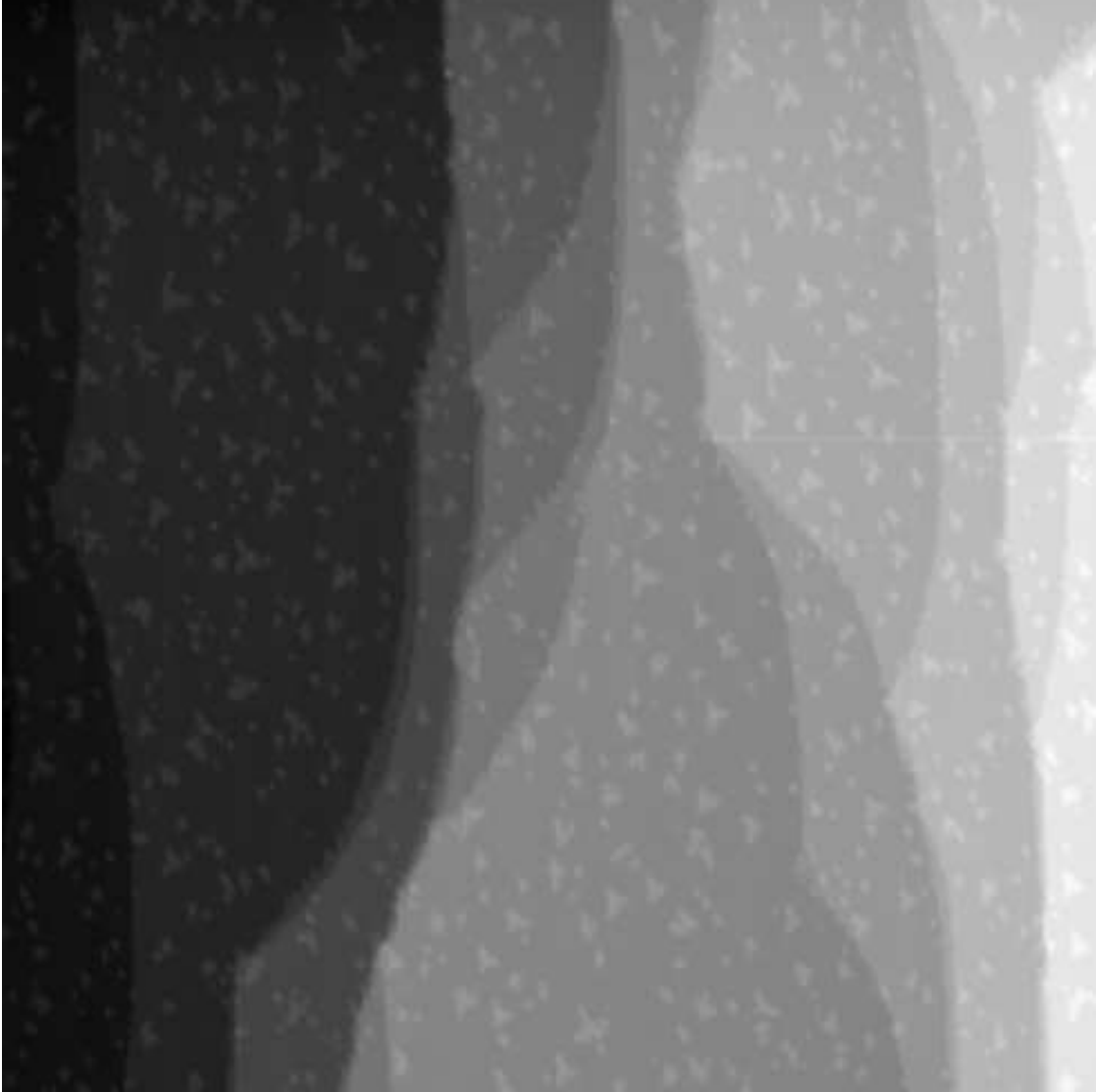


FIG. 24. Coordinates:  $x = 2,0$ ;  $y = 0,1$

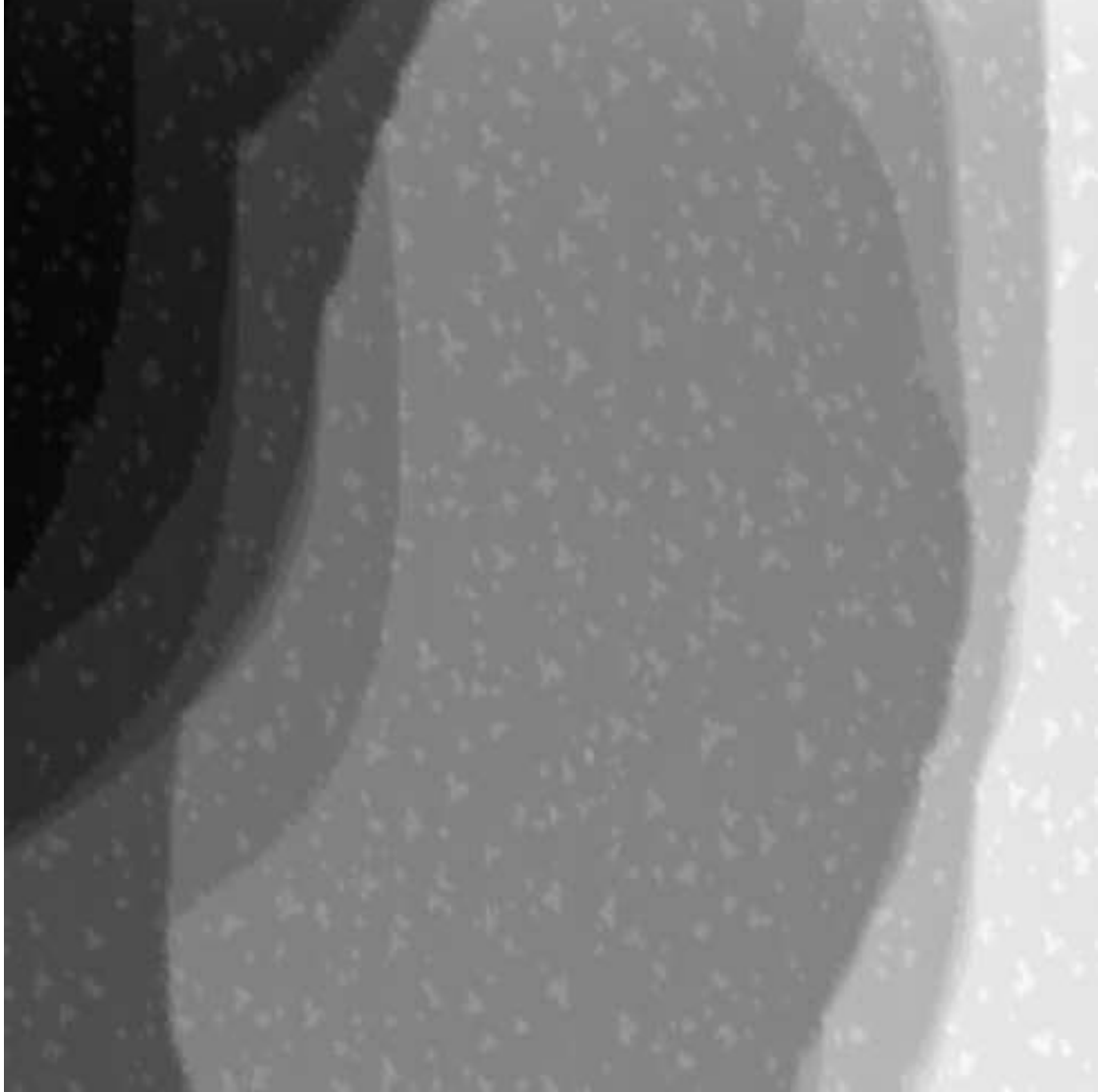


FIG. 25. Coordinates:  $x = 2,2$ ;  $y = 0,1$



FIG. 26. Coordinates:  $x = 2,5$ ;  $y = 0,4$

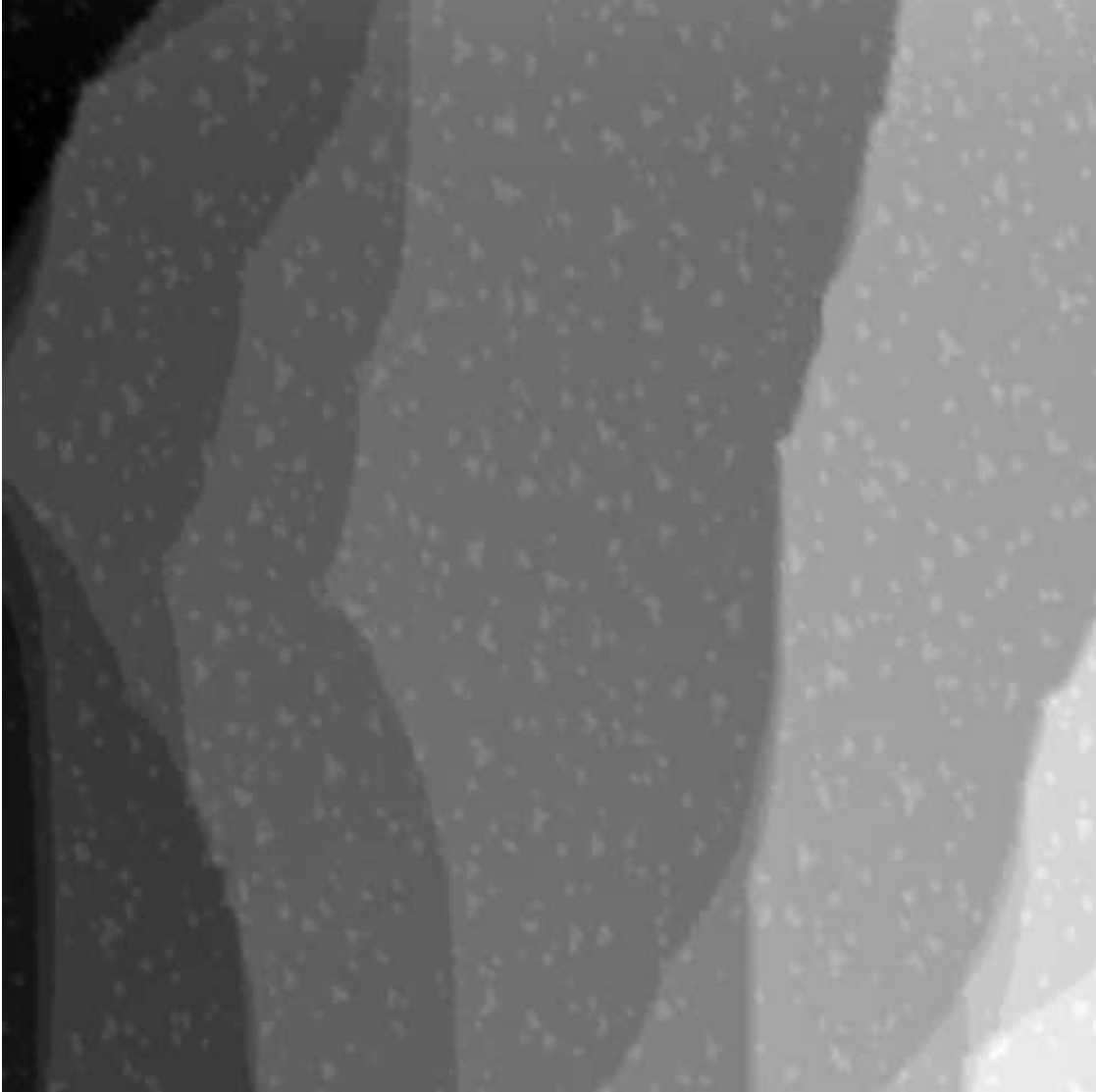


FIG. 27. Coordinates:  $x = 2,7$ ;  $y = 0,4$

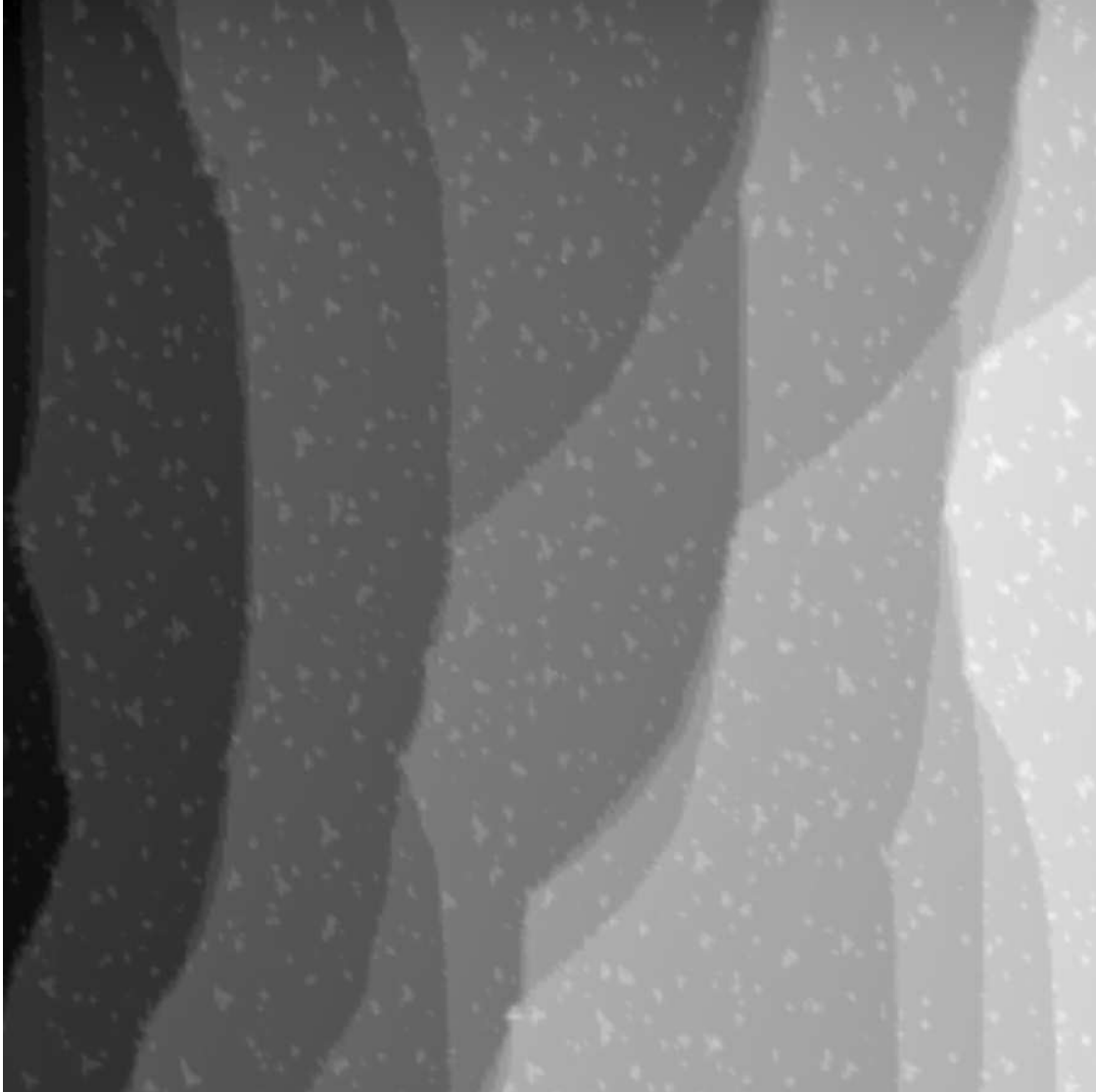


FIG. 28. Coordinates:  $x = 2,9$ ;  $y = 0,4$

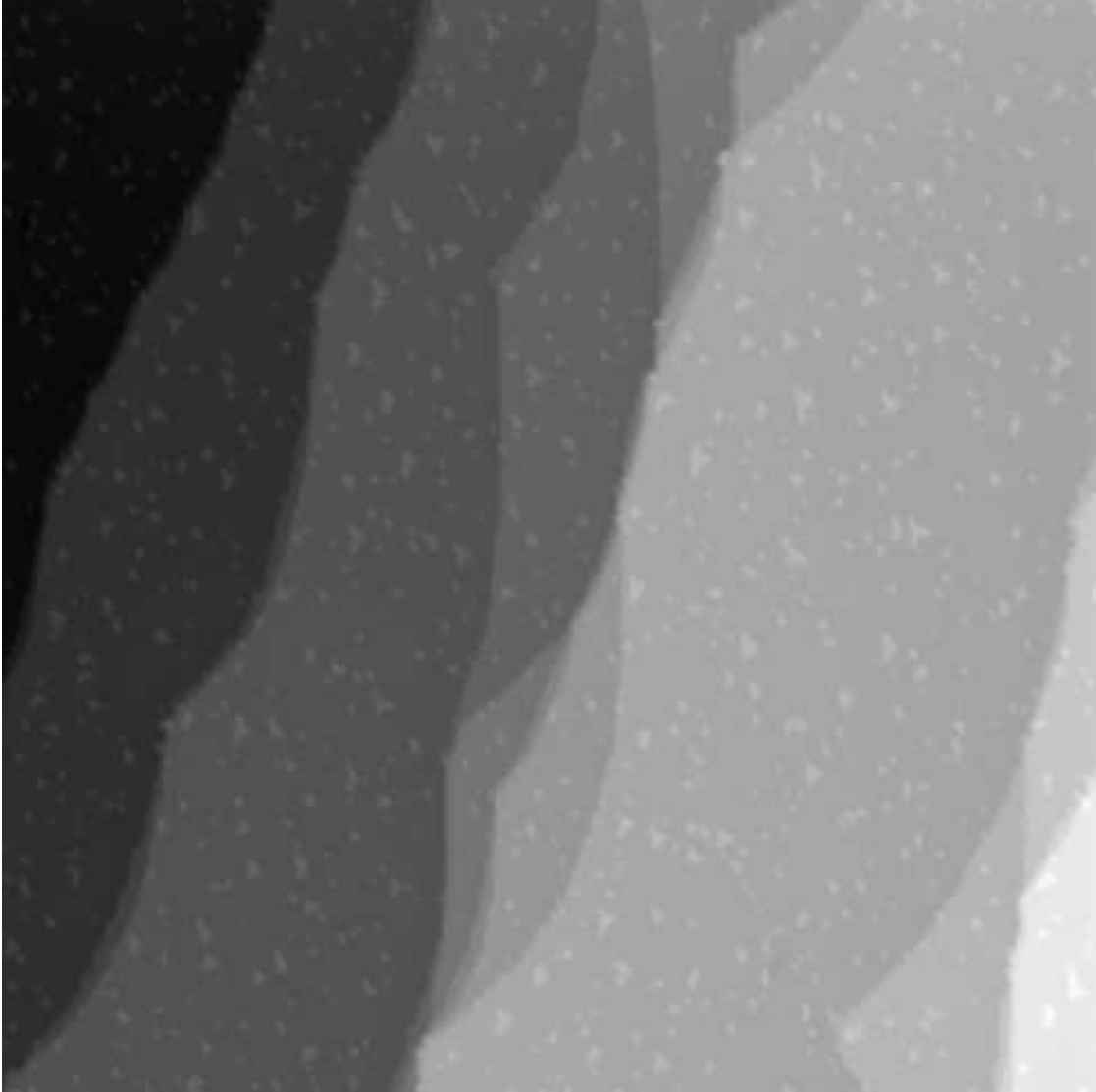


FIG. 29. Coordinates:  $x = 3,2$ ;  $y = 0,3$



FIG. 30. Coordinates:  $x = 3,4$ ;  $y = 0,4$

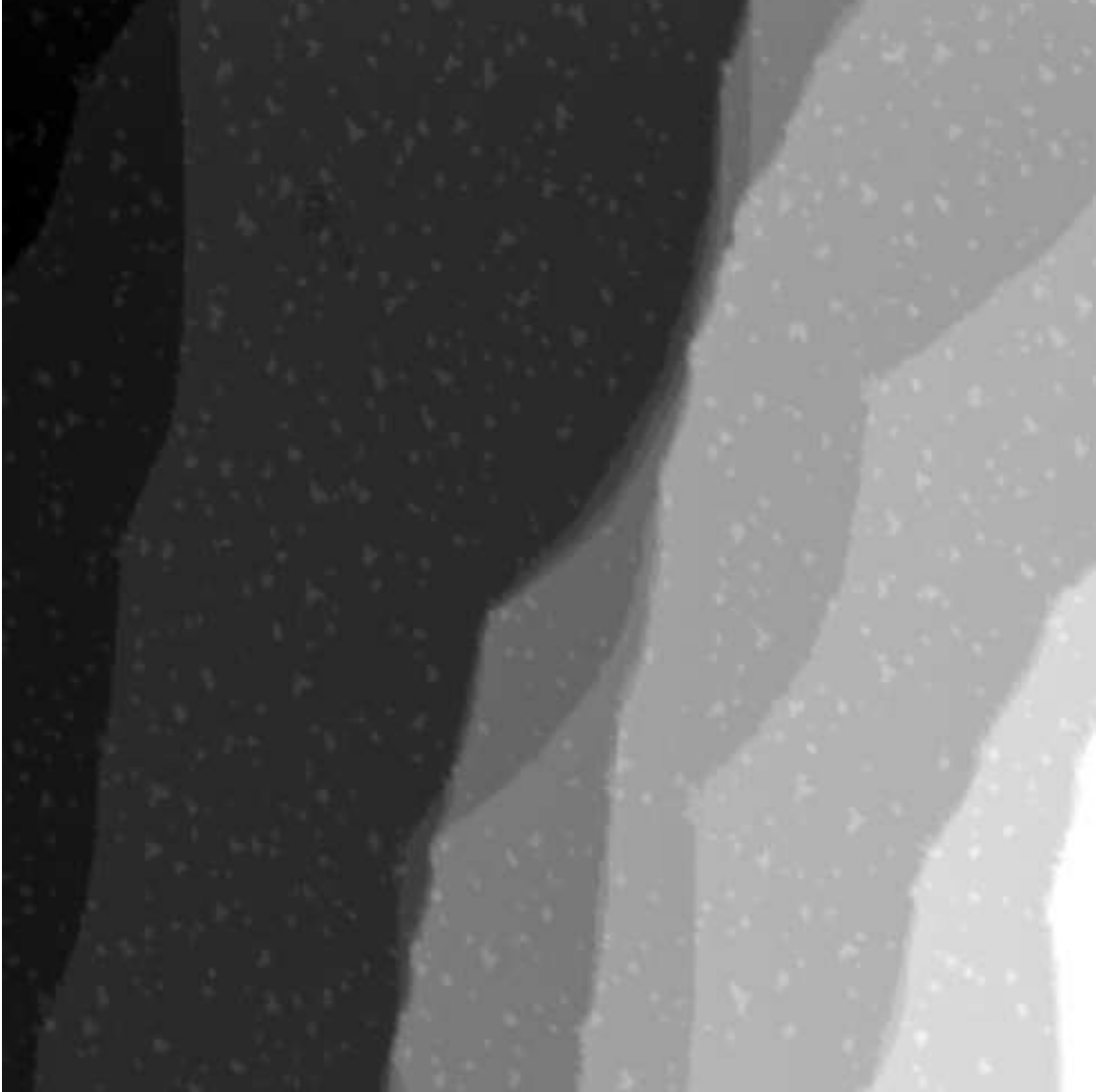


FIG. 31. Coordinates:  $x = 3,6$ ;  $y = 0,2$





FIG. 32. Coordinates:  $x = 3,8$ ;  $y = 0,4$

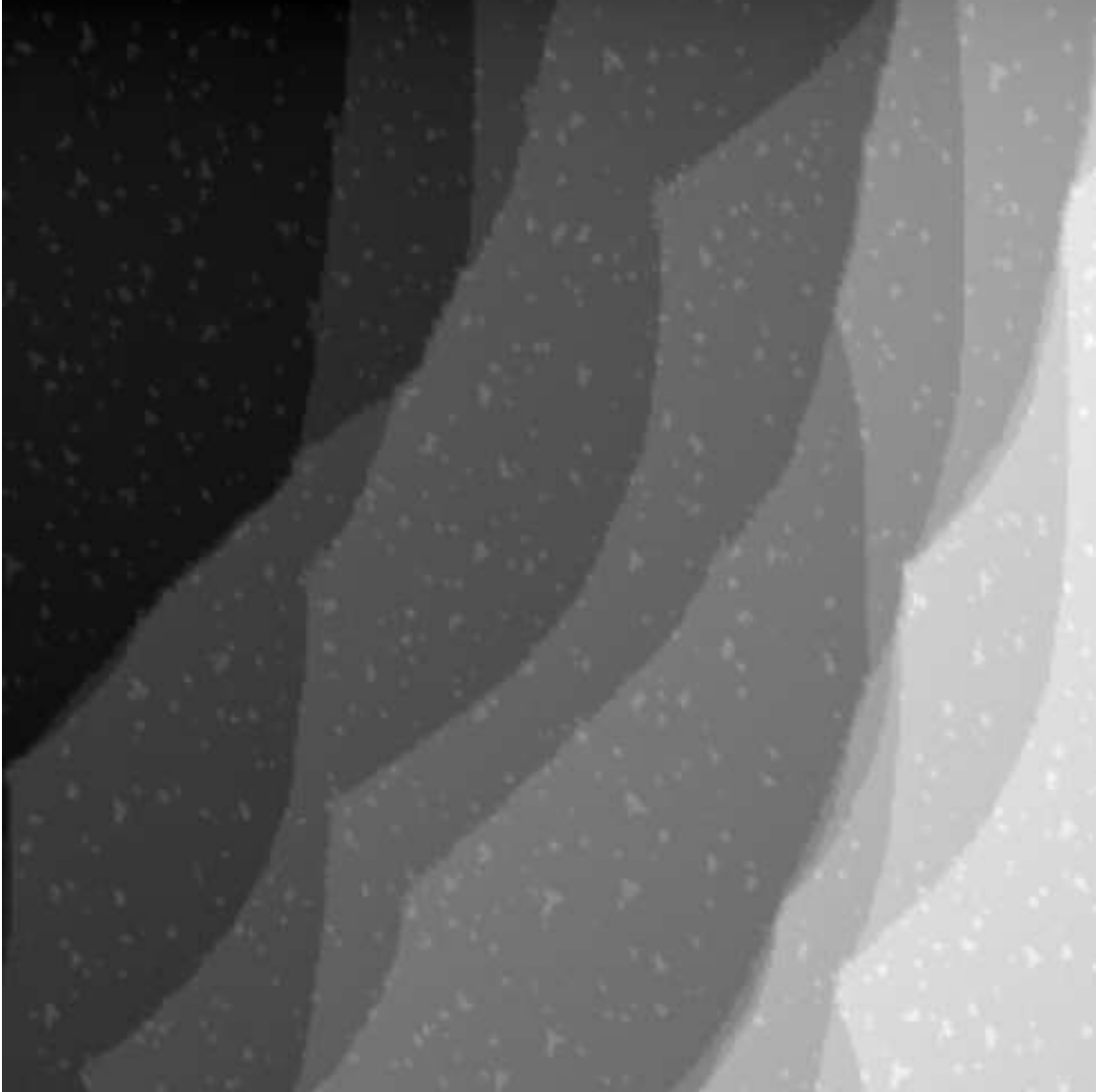


FIG. 33. Coordinates:  $x = 3,9$ ;  $y = 0,2$

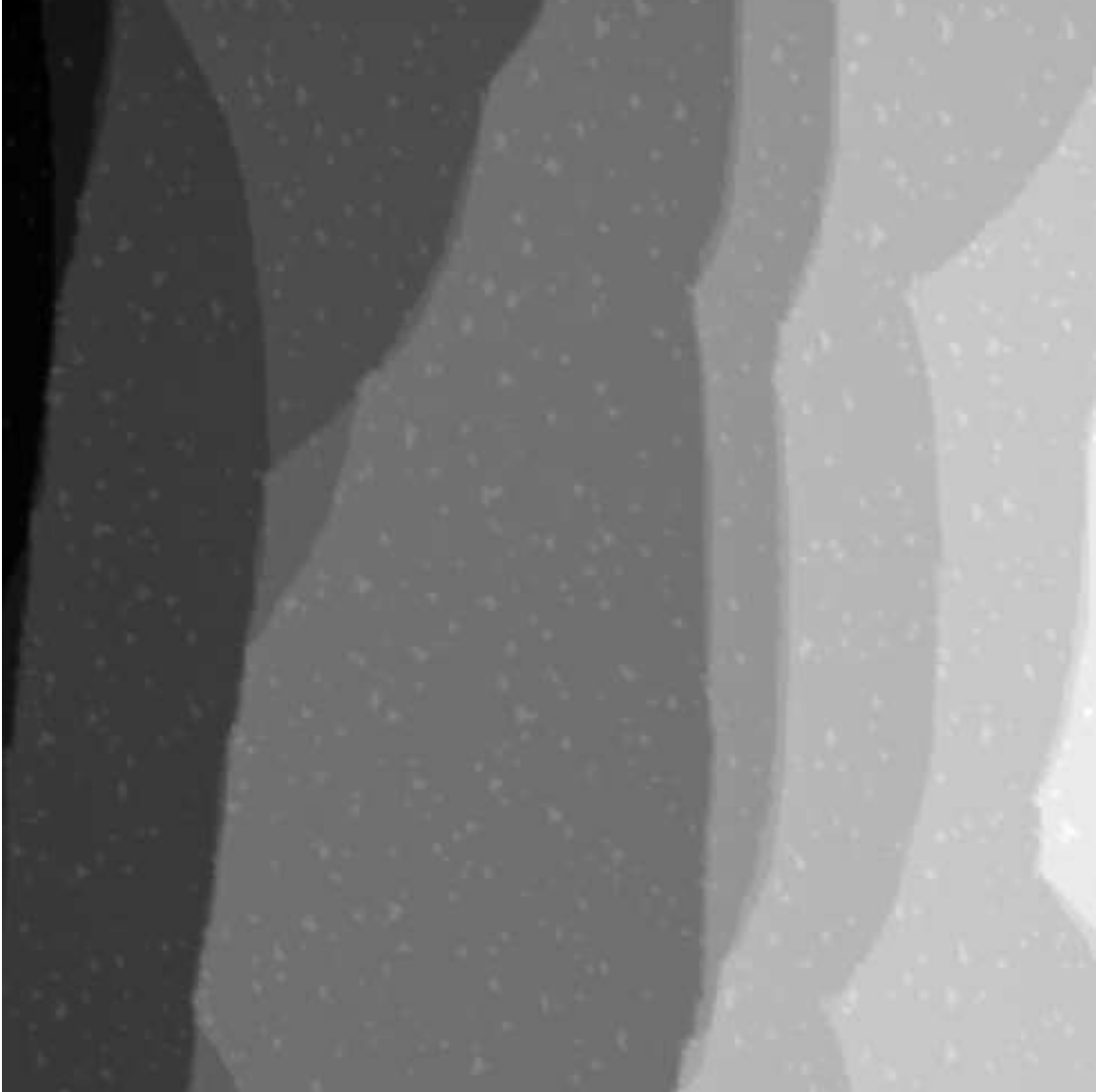


FIG. 34. Coordinates:  $x = 4,2$ ;  $y = 0,0$

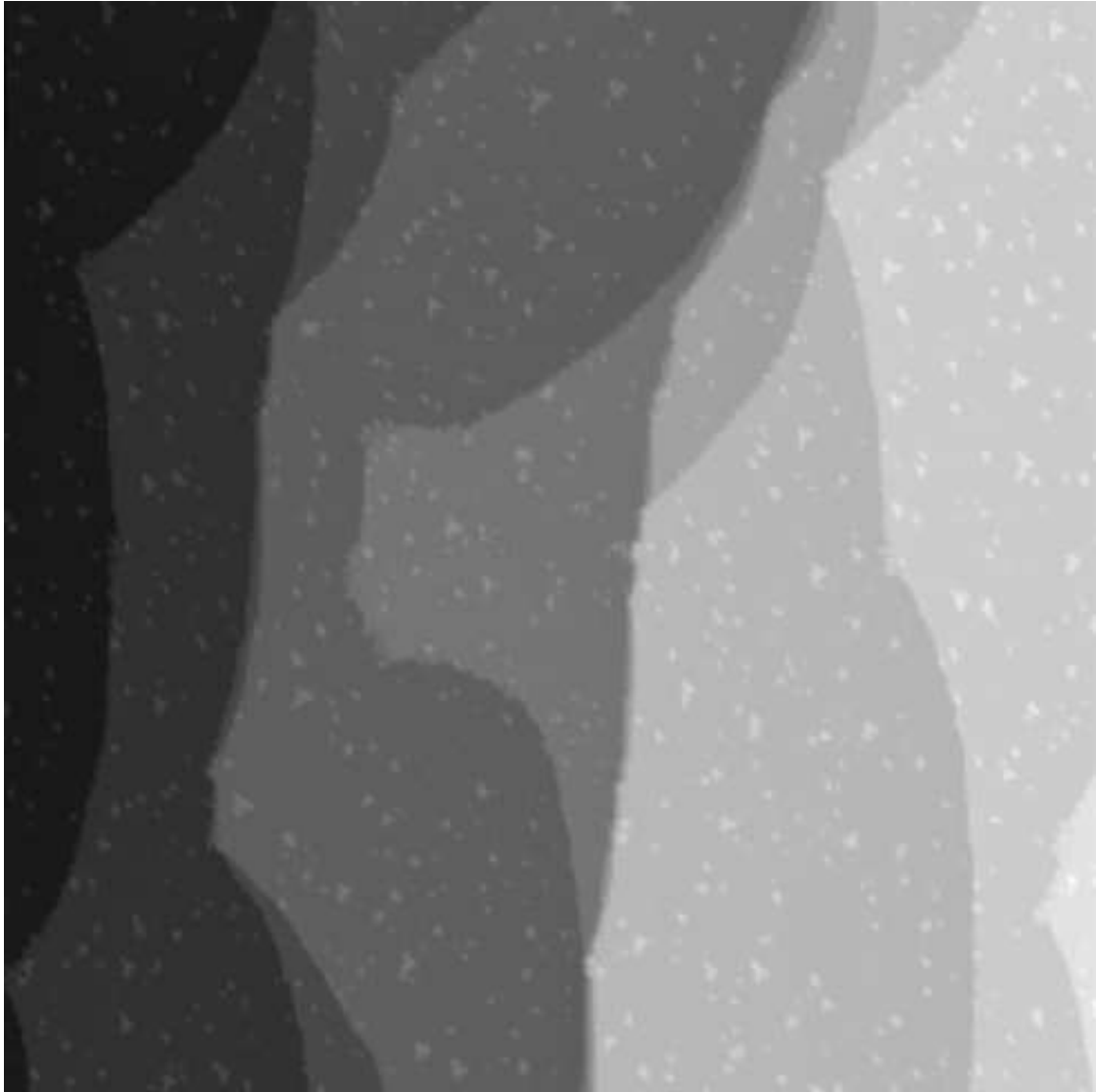


FIG. 35. Coordinates:  $x = 4,2$ ;  $y = 0,2$

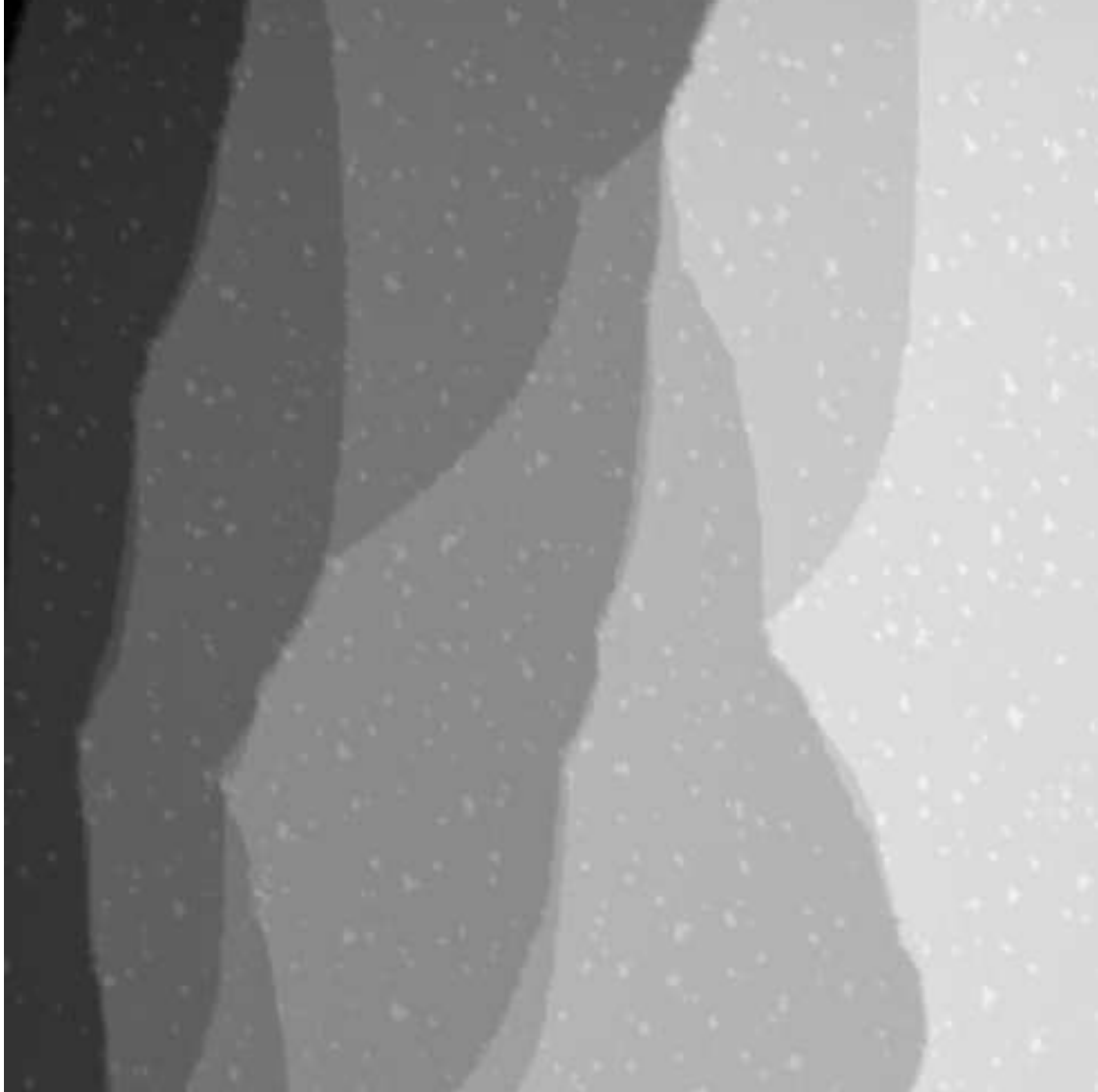


FIG. 36. Coordinates:  $x = 4,5$ ;  $y = 0,0$

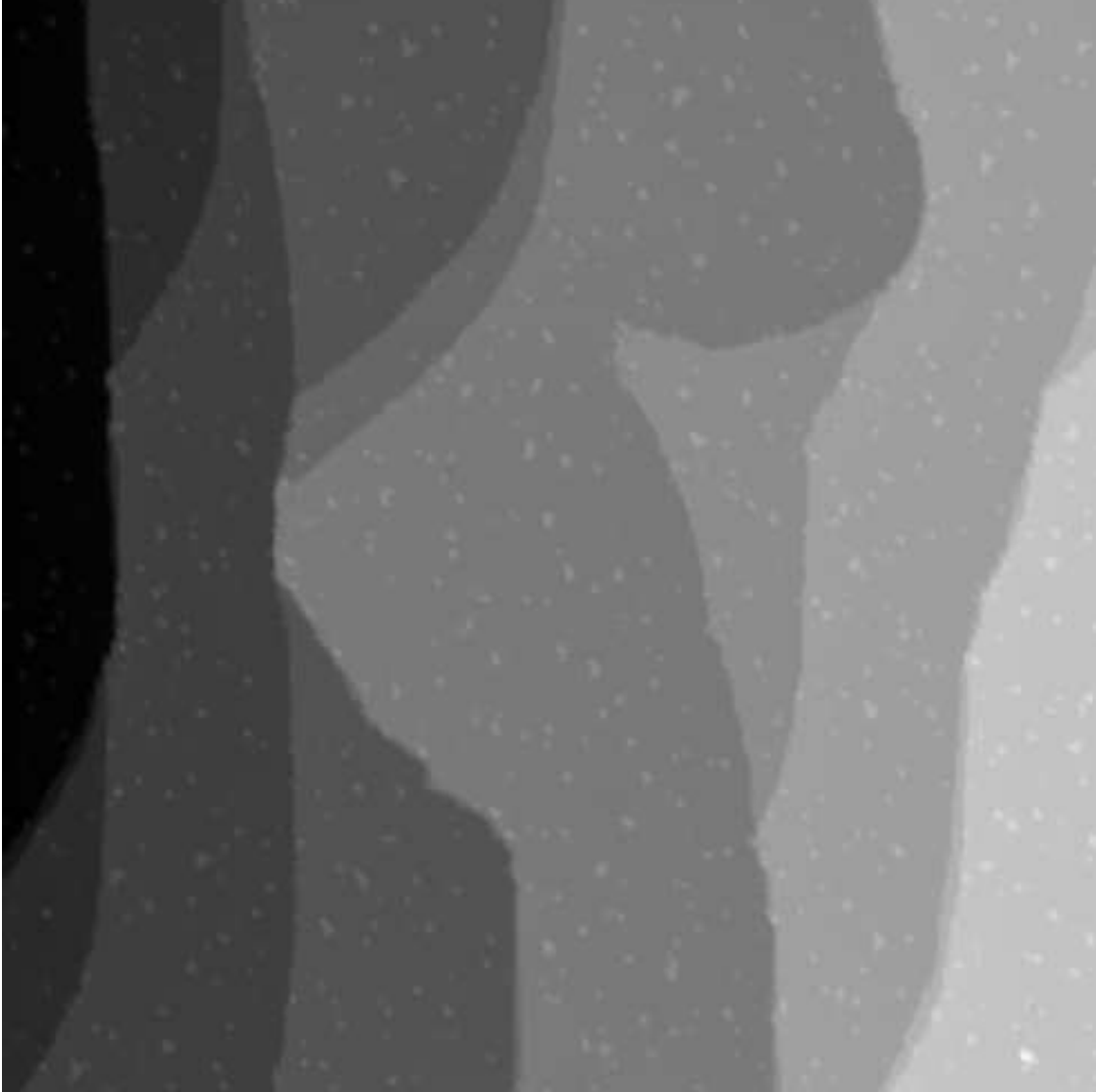


FIG. 37. Coordinates:  $x = 4,7$ ;  $y = 0,0$

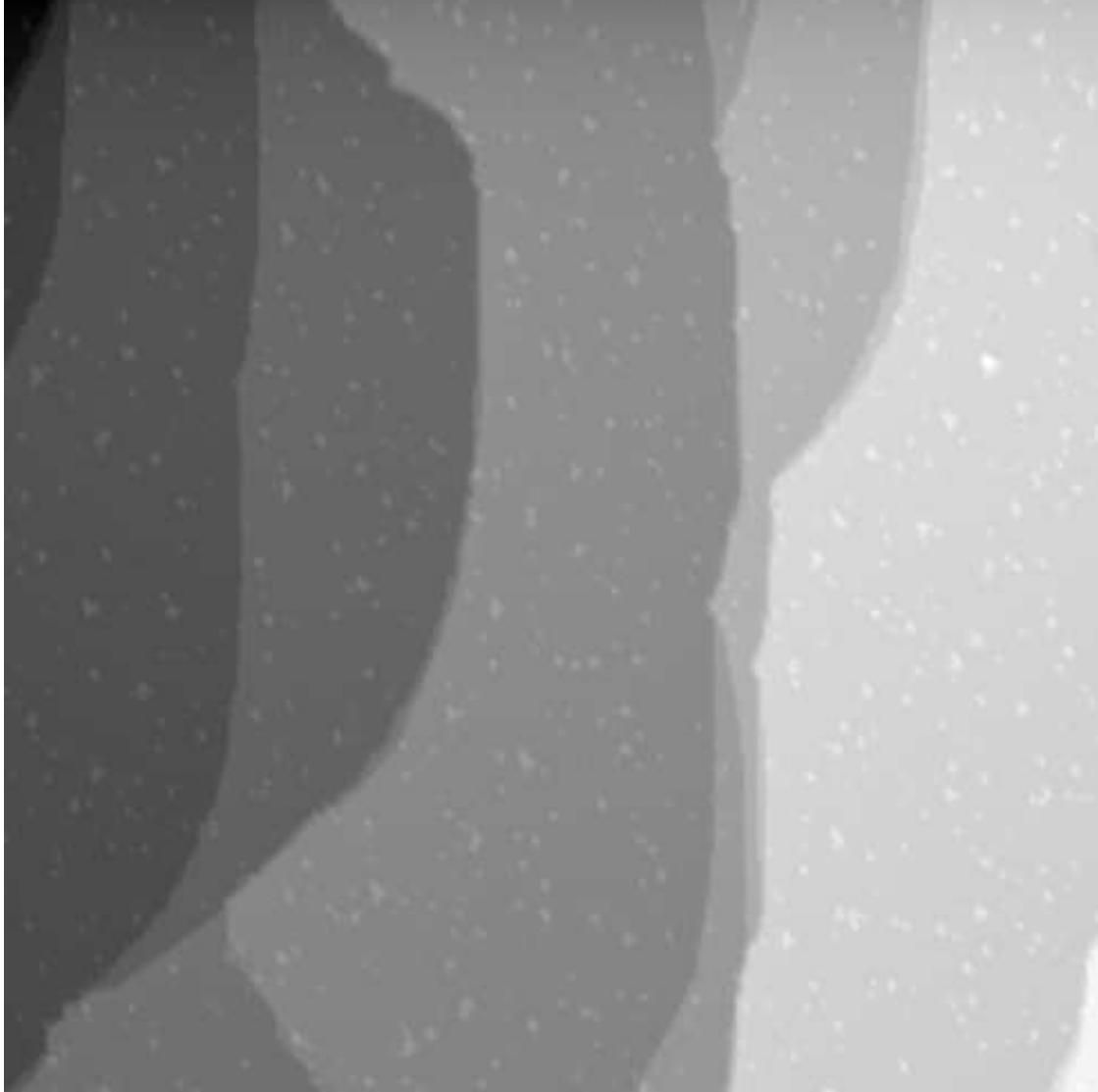


FIG. 38. Coordinates:  $x = 4,9$ ;  $y = 0,0$

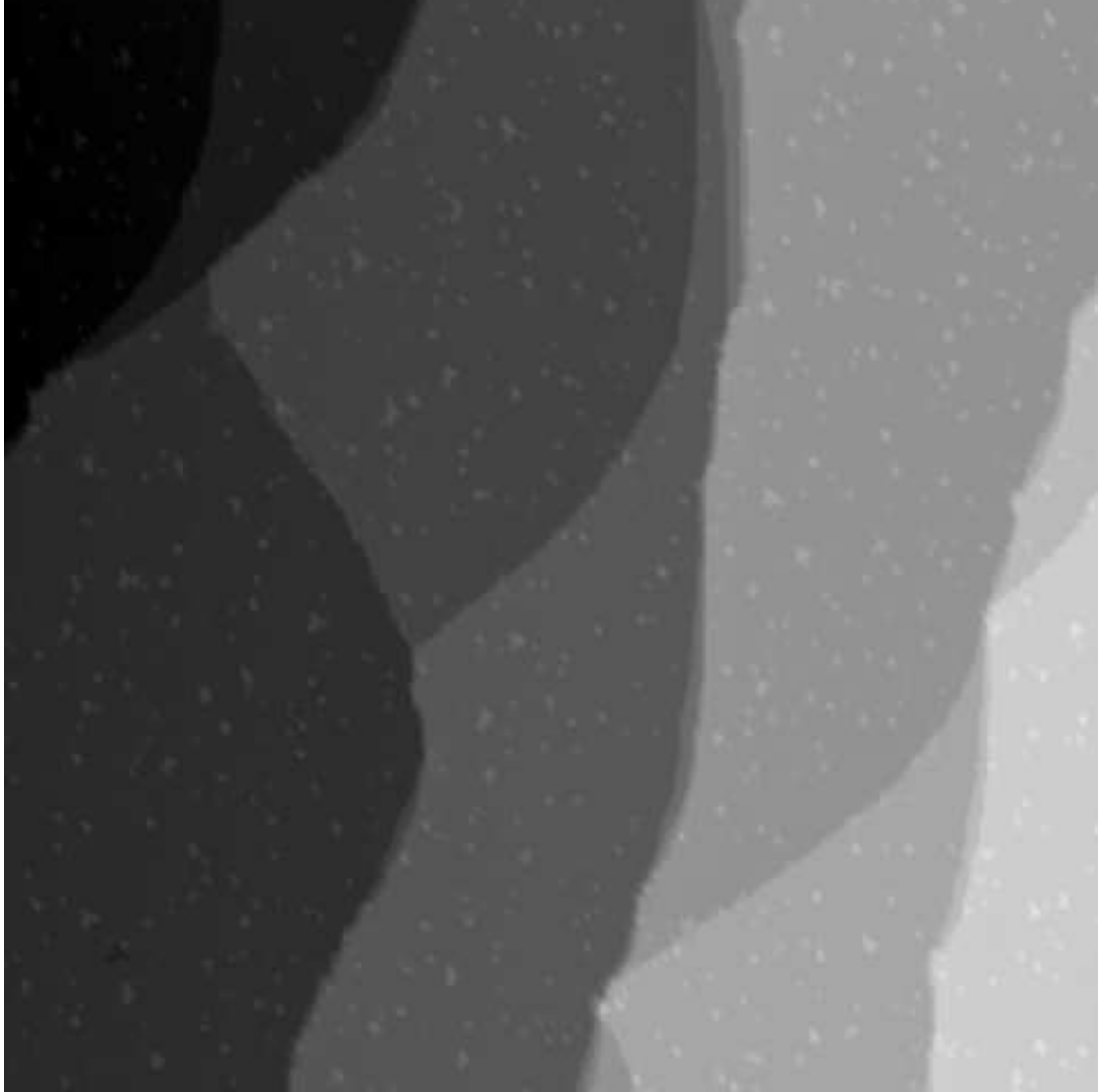


FIG. 39. Coordinates:  $x = 5,1$ ;  $y = 0,0$





FIG. 40. Coordinates:  $x = 5,3$ ;  $y = 0,0$



FIG. 41. Coordinates:  $x = 5,4$ ;  $y = 0,0$



FIG. 42. Coordinates:  $x = 5,5$ ;  $y = 0,0$

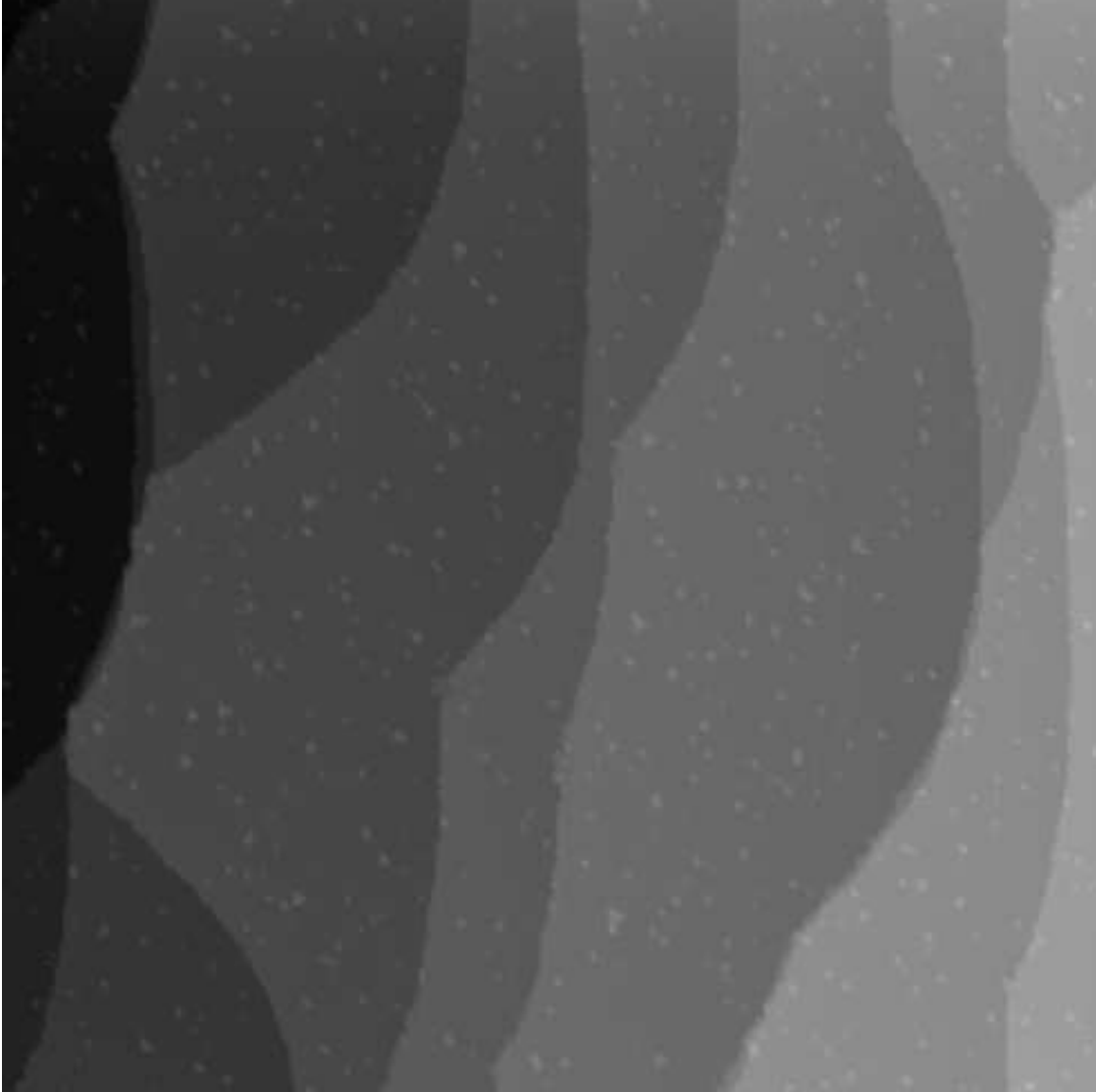


FIG. 43. Coordinates:  $x = 5,8$ ;  $y = 0,0$

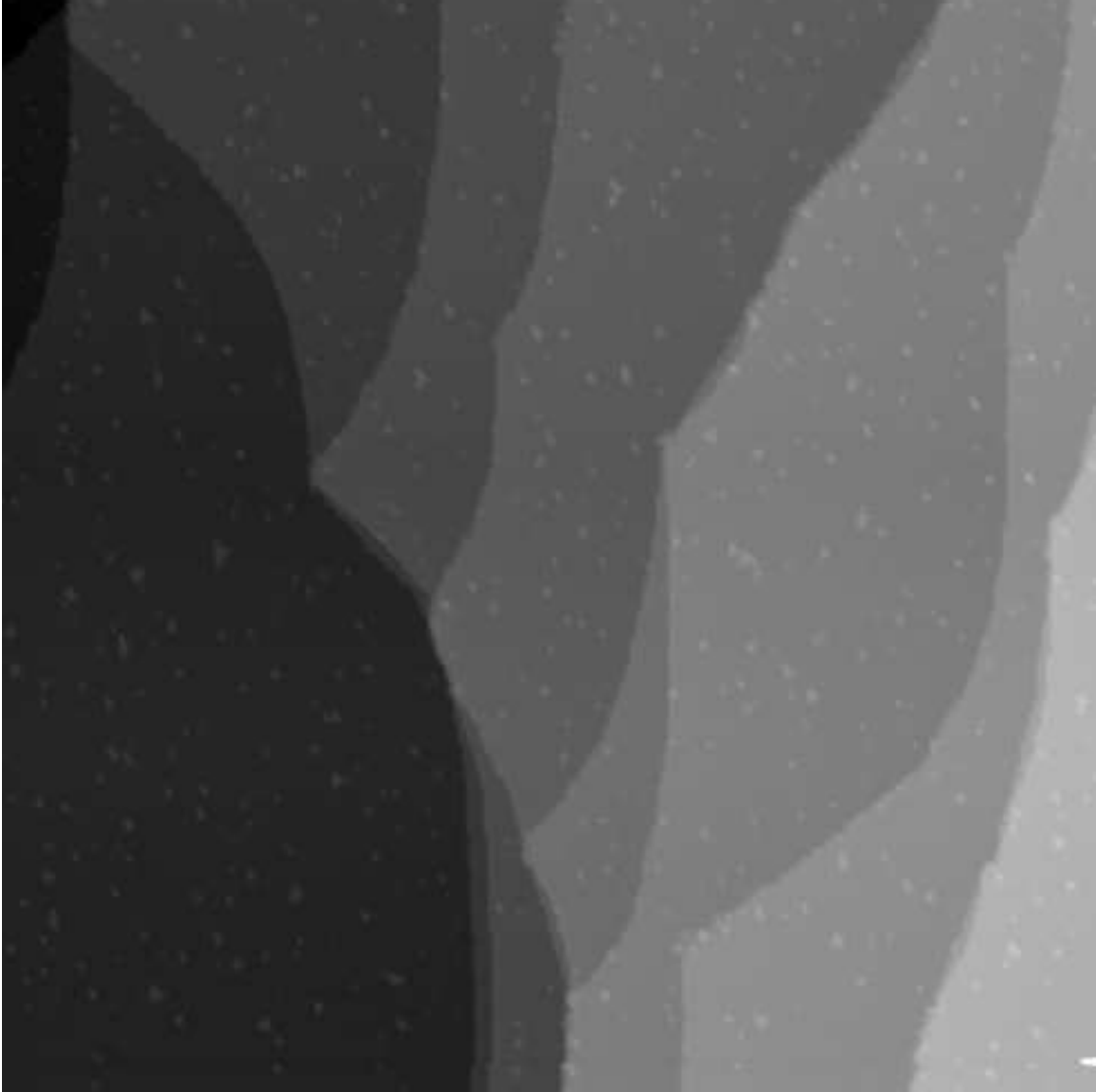


FIG. 44. Coordinates:  $x = 6,0$ ;  $y = 0,1$

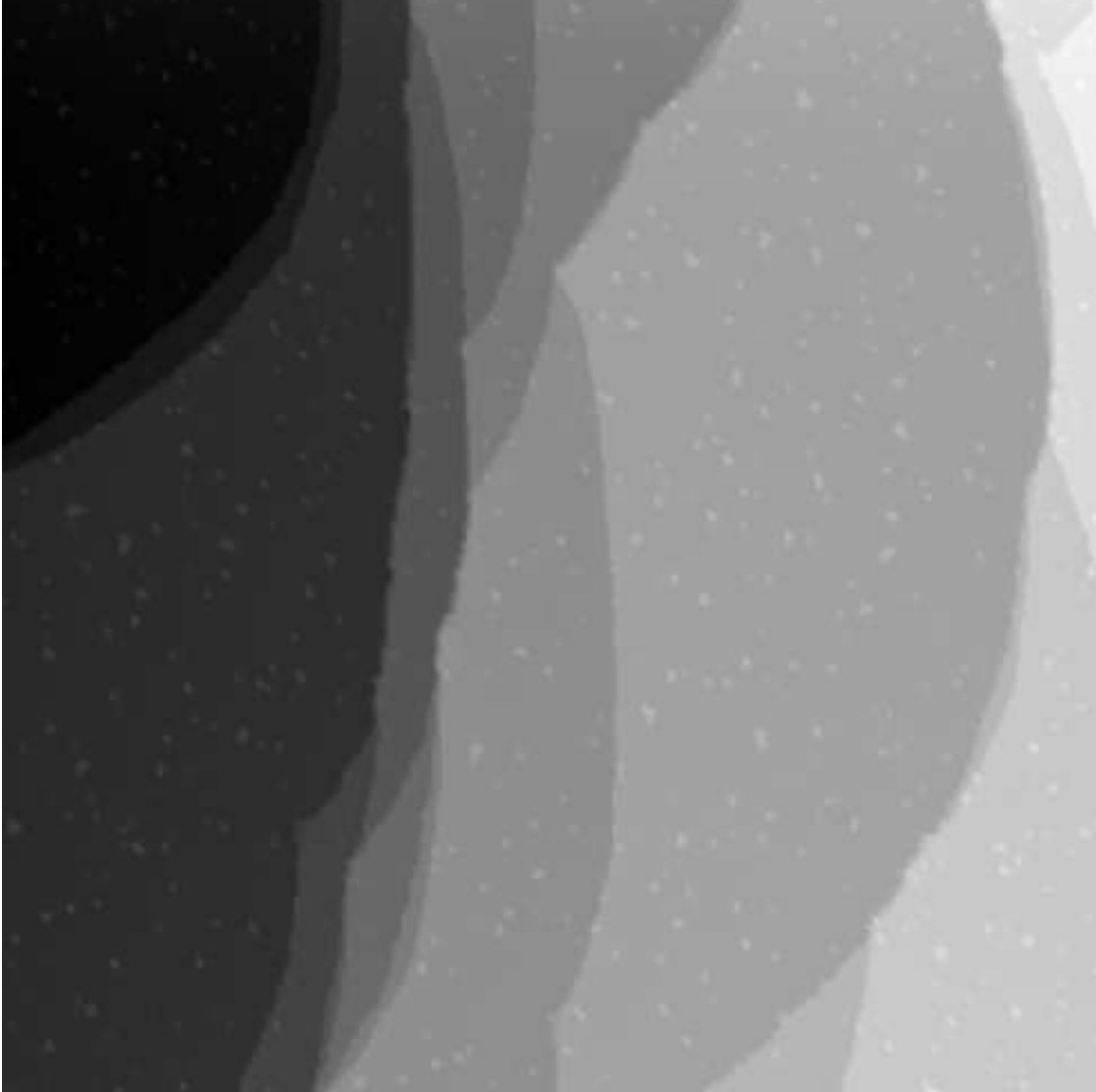


FIG. 45. Coordinates:  $x = 6,3$ ;  $y = 0,1$

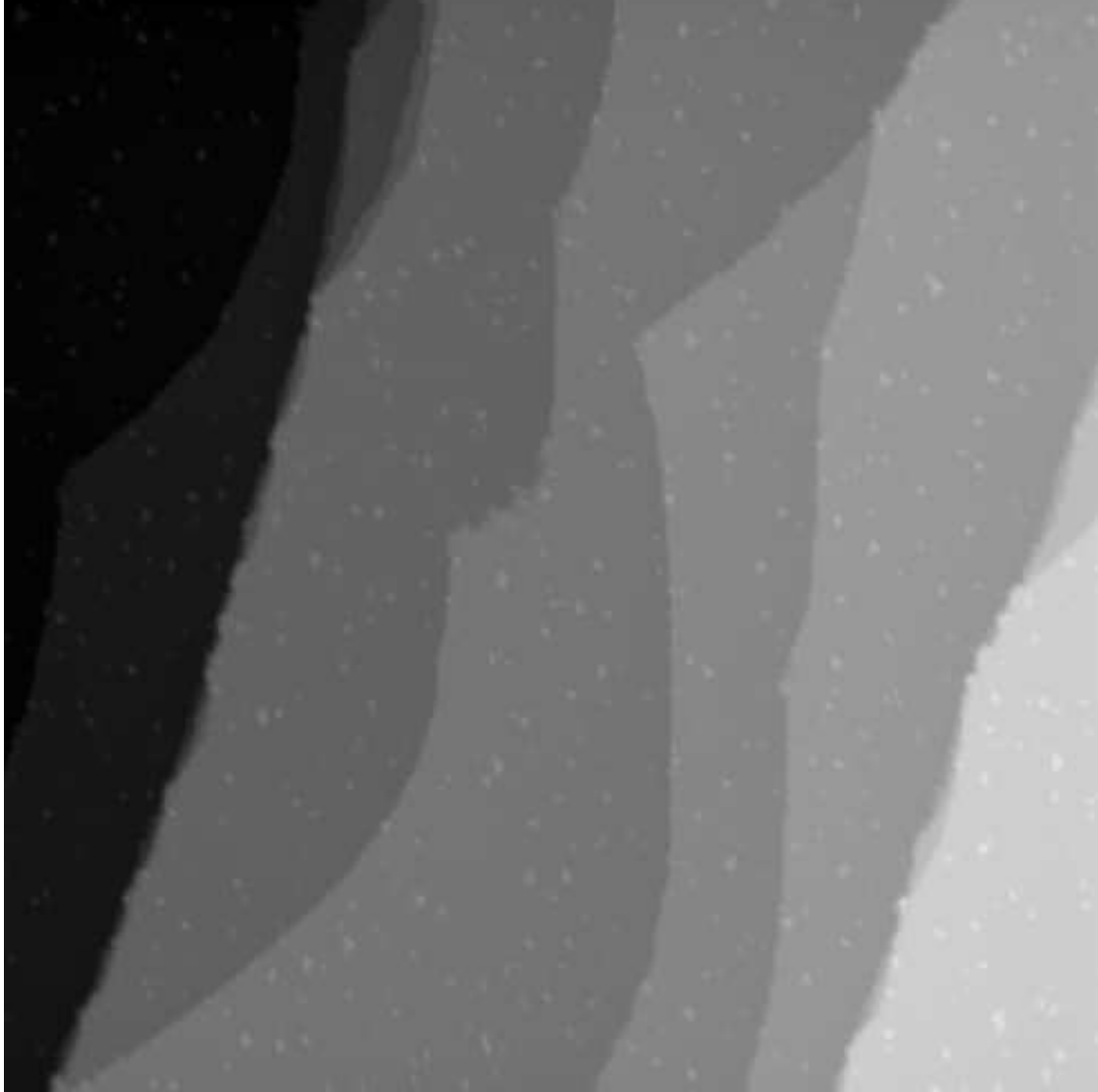


FIG. 46. Coordinates:  $x = 6,6$ ;  $y = 0,1$

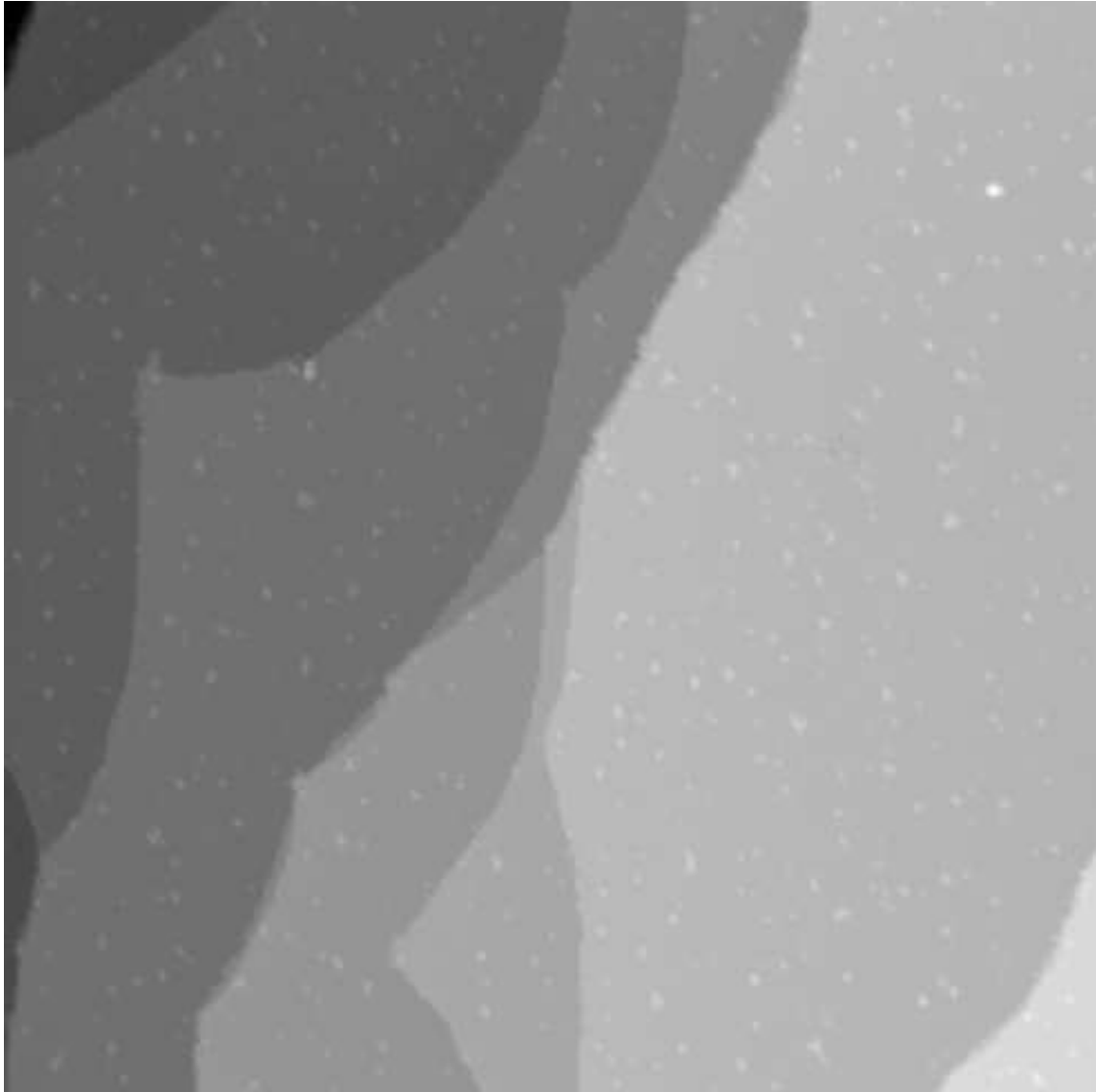


FIG. 47. Coordinates:  $x = 6,8$ ;  $y = 0,2$





FIG. 48. Coordinates:  $x = 7,0$ ;  $y = 0,2$

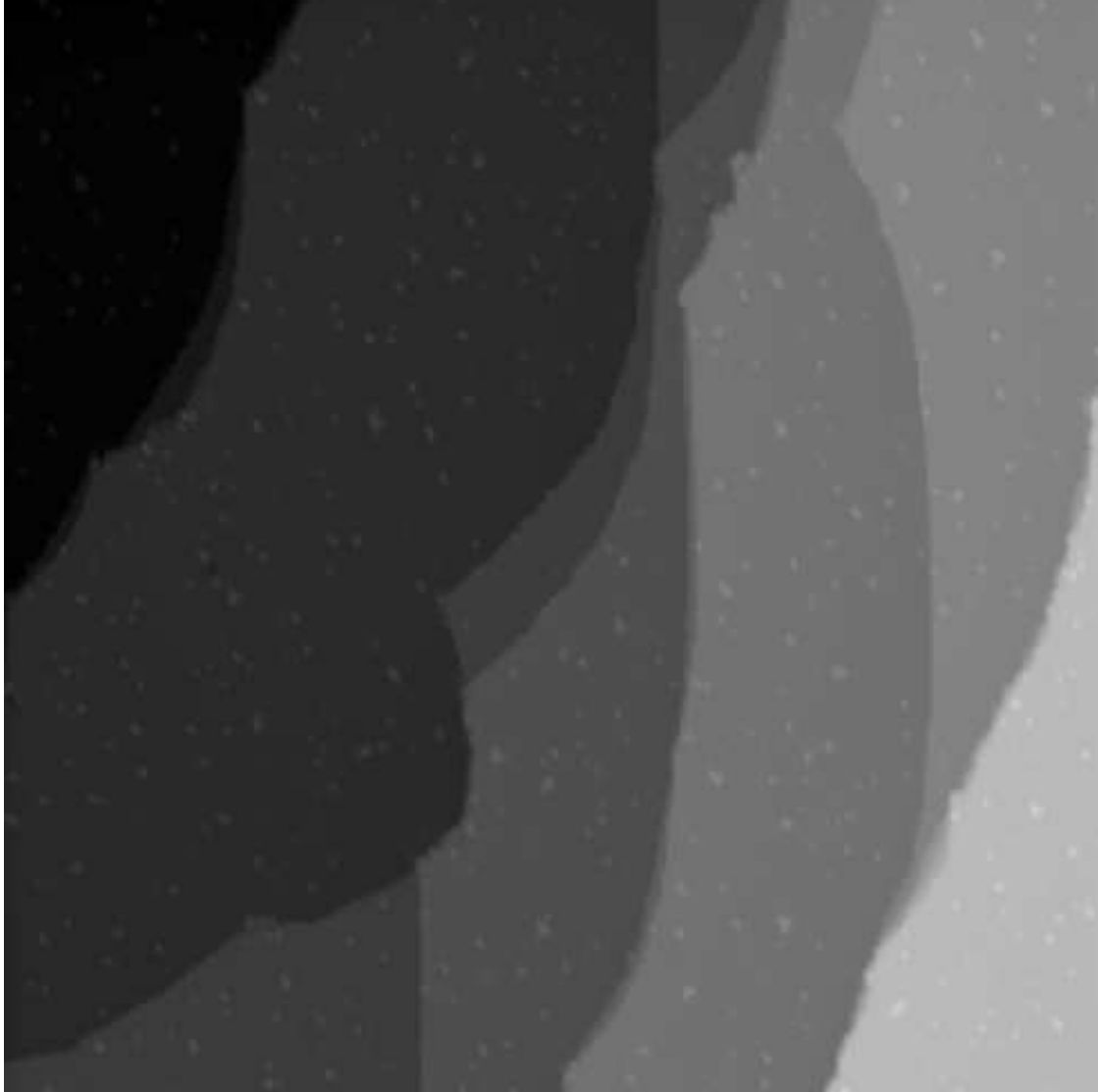


FIG. 49. Coordinates:  $x = 7,3$ ;  $y = 0,2$



FIG. 50. Coordinates:  $x = 7,5$ ;  $y = 0,2$

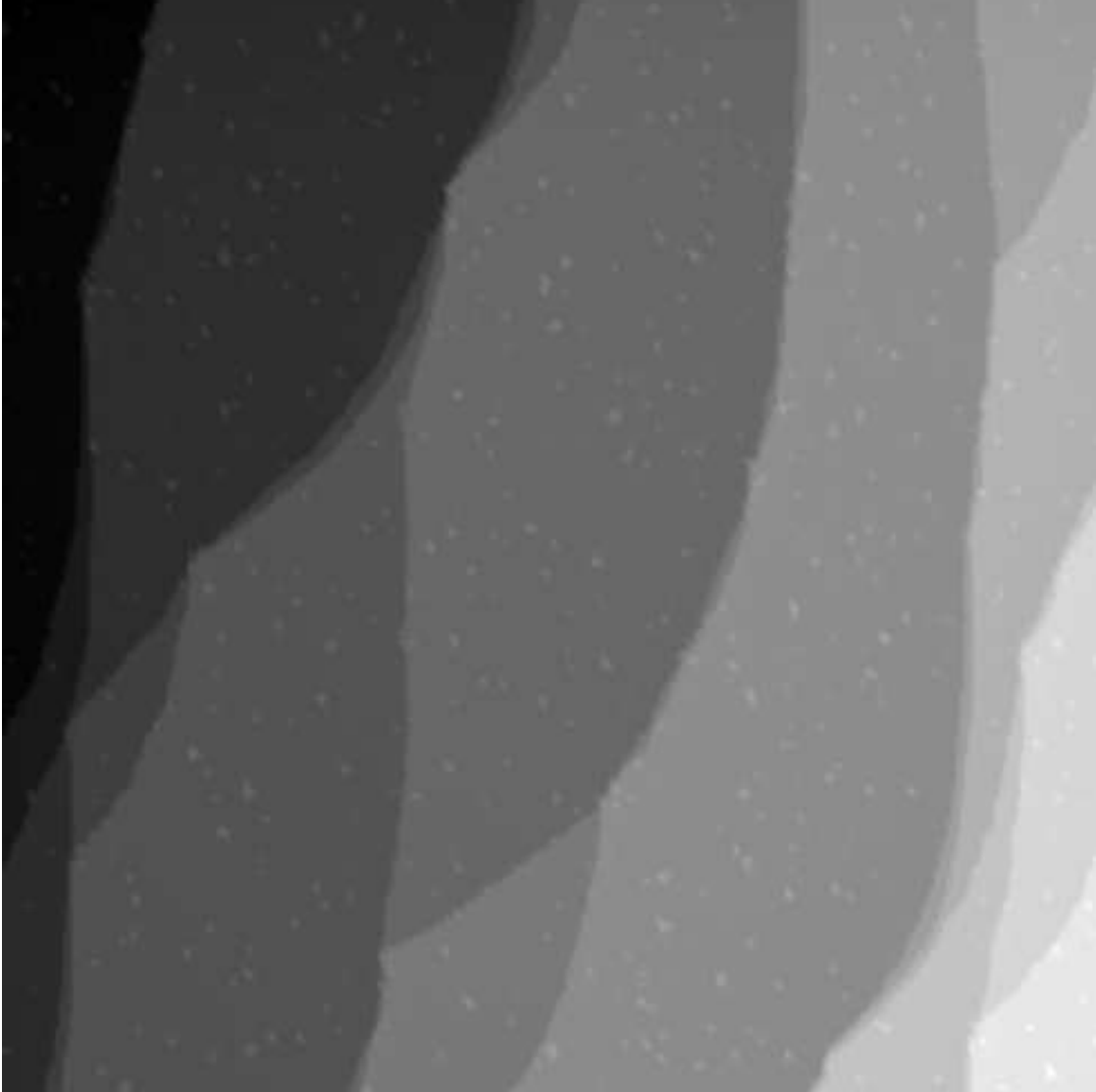


FIG. 51. Coordinates:  $x = 7,7$ ;  $y = 0,2$

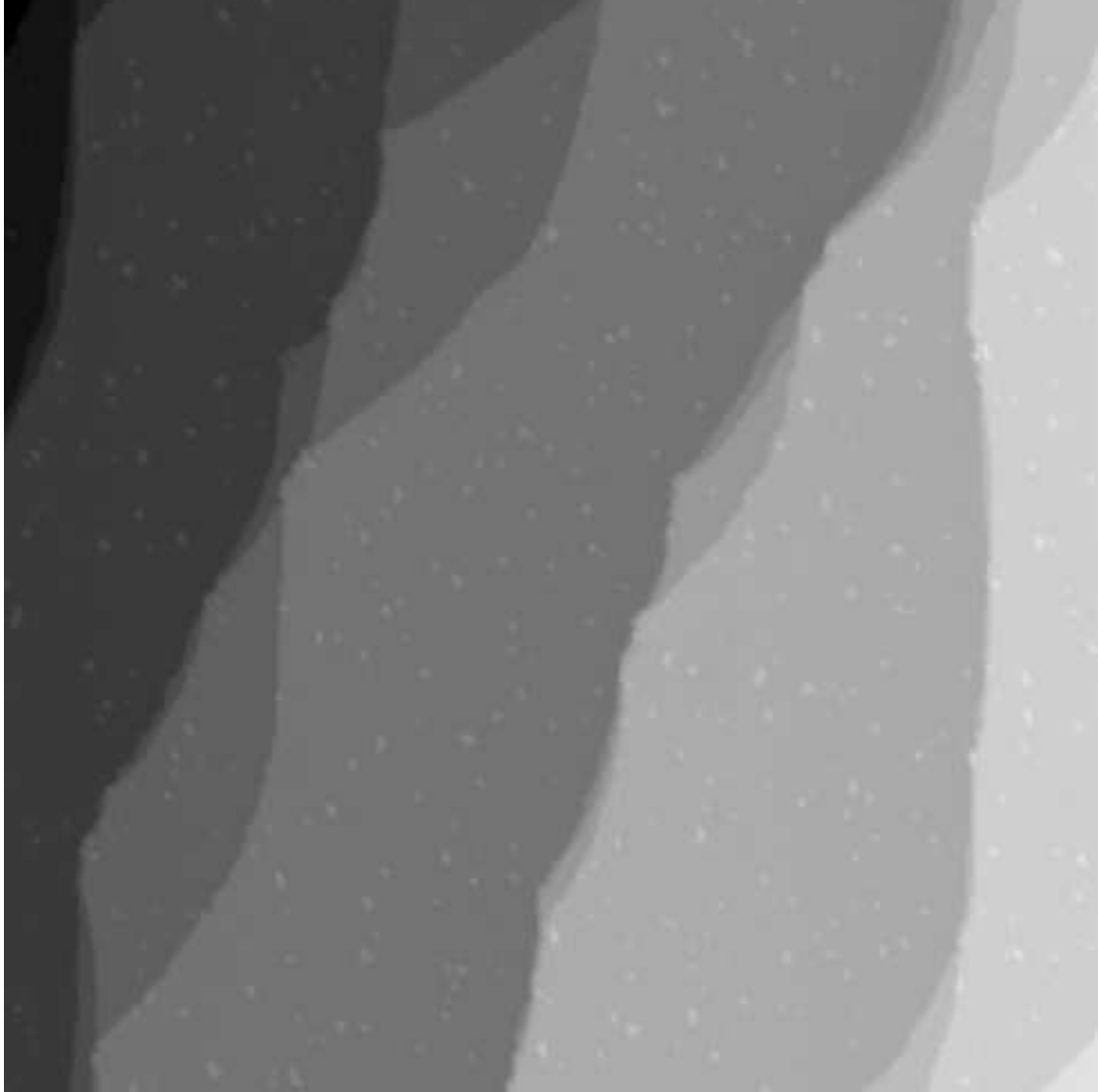


FIG. 52. Coordinates:  $x = 8,0$ ;  $y = 0,2$

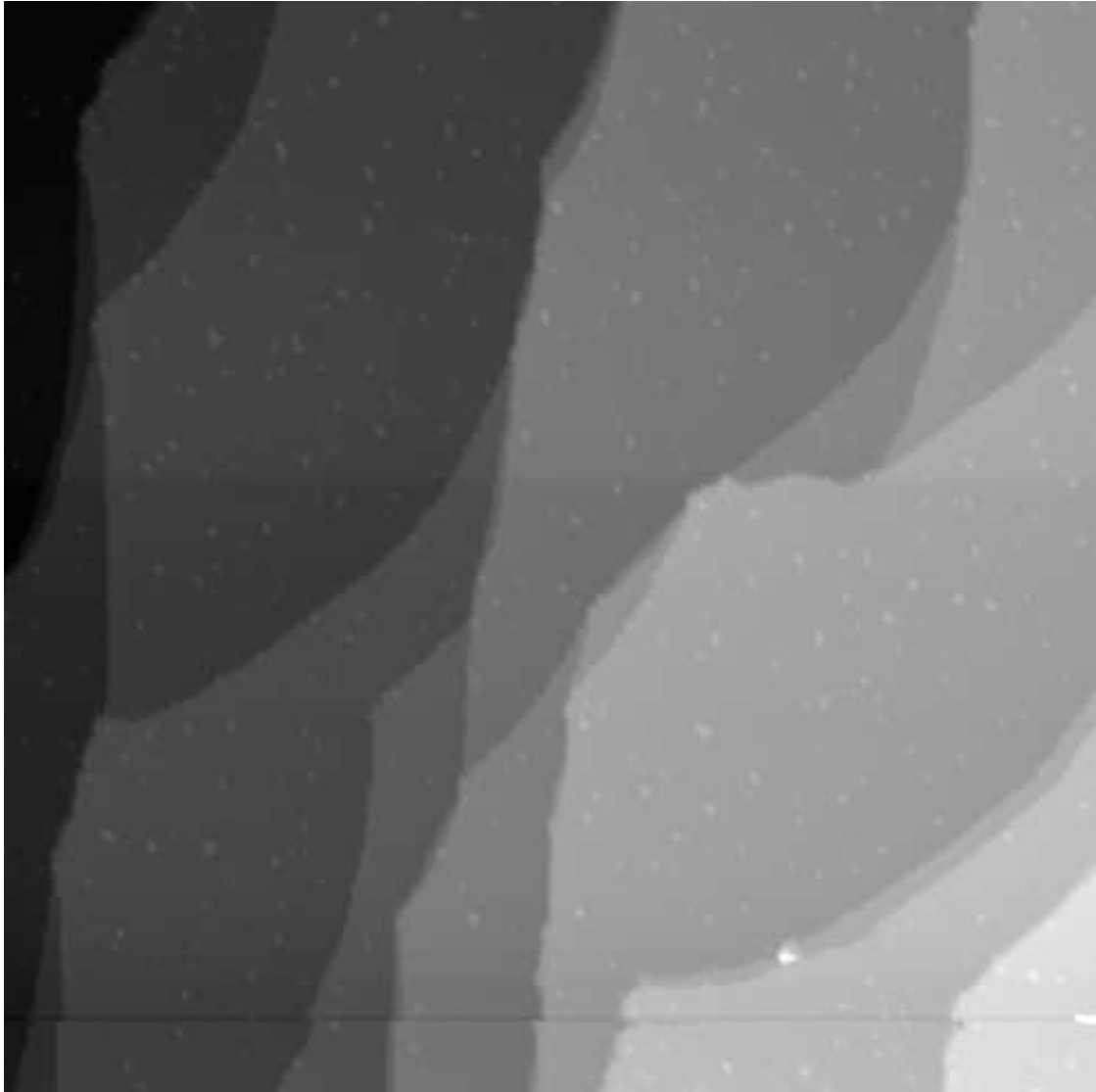


FIG. 53. Coordinates:  $x = 8,2$ ;  $y = 0,2$

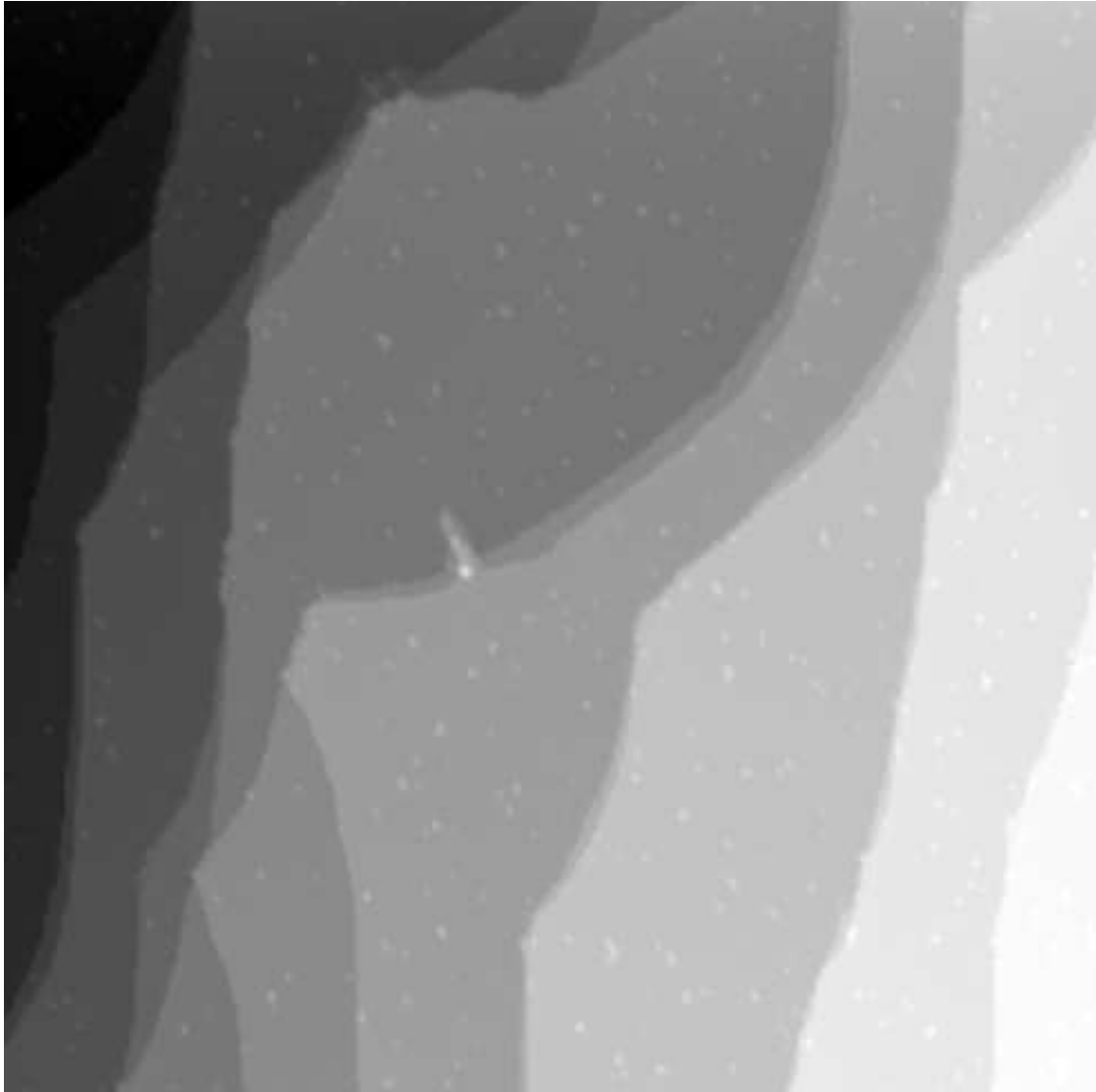


FIG. 54. Coordinates:  $x = 8,3$ ;  $y = 0,1$