All webpages originally accessed March 2nd 2015. Contents seem unchanged as of March 8th 2015. Access articles via their DOI name by appending it to http://dx.doi.org/.

Diffusion (PDE) models of biological pattern formation

Meinhardt H and Gierer A (2012), "Theoretical aspects of pattern formation and neuronal development". Max-Planck-Campus Tübingen.
http://www.eb.tuebingen.mpg.de/de/forschung/emeriti/hans-meinhardt/home.html

> Extensive. Some work dates back to 1972.
> Contains many animated illustrations. Not over-technical. In particular, note the entries on 'periodic structures', 'phyllotaxis', and 'somite formation'.

Feather coloration

> See also the Wikipedia article on Structural coloration.

(2007) "All About Birds: Color". Cornell Lab of Ornithology.
http://www.birds.cornell.edu/AllAboutBirds/studying/feathers/color/document_view

> TODO: Read the technical paper, Zi J et. al. (2003). “Coloration strategies in peacock feathers”. PNAS October 28, 2003 vol. 100 no. 22 12576-12578. doi: 10.1073/pnas.2133313100

Directional movement in plants

> See also the Wikipedia articles on Phototropism, Gravitropism.

Willige BC et. al. (2013), “D6PK AGCVIII Kinases Are Required for Auxin Transport and Phototropic Hypocotyl Bending in Arabidopsis”, The Plant Cell May 2013 vol. 25 no. 5 1674-1688, doi: 10.1105/tpc.113.111484

> Via the ScienceDaily article “How do plants grow toward the light? Scientists explain mechanism behind phototropism”.

Pattern formation by unicellular and colonial organisms

Lian X, Lu G, and Wang H (2014). “Pattern Formation in a Bacterial Colony Model”. Abstract and Applied Analysis Volume 2014 Article ID 149801. doi: 10.1155/2014/149801

Alexander Trevi (2006). “More Gardens-in-a-Petri”. Pruned (via Blogspot).
http://pruned.blogspot.com/2006/02/more-gardens-in-petri.html

> Via the MicrobeWiki article on Patterns of bacterial growth. The fractal patterns formed by chiral growth resemble the more radially-symmetric of those fractal patterns

generated by Turtle programs. Here is a better example of such a pattern (via this page).

Hoops HJ, Nishii I, Kirk DL (2000). Cytoplasmic Bridges in Volvox and Its Relatives. In: Madame Curie Bioscience Database [Internet]. Austin (TX): Landes Bioscience. Available from: http://www.ncbi.nlm.nih.gov/books/NBK6424/

Mammalian weaponry - teeth

Jernvall J and Thesleff I (2012). “Tooth shape formation and tooth renewal: evolving with the same signals”. Development 139, 3487-3497. doi: 10.1242/dev.085084

Extensive. Pending further perusal.

MacPherson BR (2003?). “Oral Histology - Module 3: Tooth Development - 40. Determination of Root Shape”. University of Kentucky College of Medicine (a personal site hosted by the institution). http://www.uky.edu/~brmacp/oralhist/module3/lab/oh3main.htm

Slides. Date approximate, via a Mar ‘03 paper by the site’s author in the Journal of Dental Education.

Boyd R, Silk JB (2000). "How Humans Evolved - Part 2: Primate Behavior and Ecology - Primate Mating Systems". W.W. Norton & Company, Inc. http://www.wwnorton.com/college/anthro/bioanth/ch7/chap7.htm

Citation is for general knowledge taught in biological anthropology.
Link is to an e-book associated (obscurely) with a publisher-maintained StudySpace.

Debbie (2013). "Chimpanzee smiles". Chimpanzee Sanctuary Northwest. http://www.chimpsanctuarynw.org/blog/2013/09/chimpanzee-smiles/

Mammalian weaponry - horns

Geist V (1966). "The Evolution of Horn-Like Organs". Behaviour Vol. 27, No. 3/4, pp. 175-214. http://www.jstor.org.proxy.cc.uic.edu/stable/4533157

Second and third pages contain illustrations of various types of horns.
For spiralling horns, see also Meinhardt on orientation in biological pattern formation.

Robinson MR, Kruuk LEB (2007). "Function of weaponry in females: the use of horns in intrasexual competition for resources in female Soay sheep". Biol. Lett.: 2007 3 651-654. doi: 10.1098/rsbl.2007.0278

(2012) "Trigger for massive animal weapons, ornaments uncovered". Washington State University News. https://news.wsu.edu/2012/07/26/trigger-for-massive-animal-weapons-ornaments-uncovered/

TODO: Skim various papers by the authors in question.

Flocking behavior by particles in solution

Palacci J, et. al. (2014). "Light-activated self-propelled colloids" Phil. Trans. R. Soc. A: 2014 372 20130372. doi: 10.1098/rsta.2013.0372

Via the Wired article "It's (Almost) Alive! Scientists Create a Near-Living Crystal".

Skeletal development

Olsen BR, Reginato AM, Wang W (2000). "Bone Development". Annual Review of Cell and Developmental Biology, Vol. 16: 191 -220. doi: 10.1146/annurev.cellbio.16.1.191

Extensive, but fairly thoroughly covered by the slides.

Cooper DML, Erickson B, Peele AG, Hannah K, Thomas CDL, and Clement JG (2011), “Visualization of 3D osteon morphology by synchrotron radiation micro-CT”. Journal of Anatomy, 219: 481–489. doi: 10.1111/j.1469-7580.2011.01398.x

Caveats regarding idealized osteon structure, exemplifying variation in biological pattern generation.

Horne F (2006). "How are seashells created? Or any other shell, such as a snail's or a turtle's?" Scientific American. http://www.scientificamerican.com/article/how-are-seashells-created/

Doblaré M, García JM (2001). "Anisotropic bone remodelling model based on a continuum damage-repair theory". Journal of Biomechanics Volume 35, Issue 1, January 2002, Pages 1–17. doi: 10.1016/S0021-9290(01)00178-6 (via UIC proxy)