

Publications

A list of publications and conference participations

Journal articles:

Gaskin J W, Steiner C, Harris K, Das K C, Bibens B 2007 Effect of Low-Temperature Pyrolysis Conditions on Biochar for Agricultural Use. *Transactions of the ASABE* 51, 2061-2069

Steiner C, Teixeira W G, Lehmann J, Nehls T, Macêdo J L V d, Blum W E H and Zech W 2007 Long term effects of manure, charcoal and mineral fertilization on crop production and fertility on a highly weathered Central Amazonian upland soil. *Plant and Soil* 291, 275-290

Steiner C, Das K C, Garcia M, Förster B and Zech W 2007 Charcoal and Smoke Extract Stimulate the Soil Microbial Community in a Highly Weathered Xanthic Ferralsol. *Pedobiologia* doi:10.1016/j.pedobi.2007.08.002

Steiner C, Waltert M and Mühlenberg M 2002-2003 Hunting pressure on the drill *Mandrillus leucophaeus* in Korup Project Area, Cameroon. *African Primates* 6, 10-19

Lehmann J, da Silva Jr. J P, Steiner C, Nehls T, Zech W and Glaser B 2003 Nutrient availability and leaching in an archaeological Anthrosol and a Ferralsol of the Central Amazon basin: fertilizer, manure and charcoal amendments. *Plant and Soil* 249, 343-357

Major J, Steiner C, Ditommaso A, Falcão N P S and Lehmann J 2005 Weed composition and cover after three years of soil fertility management in the central Brazilian Amazon: Compost, fertilizer, manure and charcoal applications. *Weed Biology and Management* 5, 69-76

Steiner C, Glaser B, Teixeira W G, Lehmann J, Blum W E H and Zech W 2008 Nitrogen Retention and Plant Uptake on a Highly Weathered Central Amazonian Ferralsol amended with Compost and Charcoal. *Journal of Plant Nutrition and Soil Science* 171 (6), 893-899.

Steiner C, Arruda M R d, Teixeira W G and Zech W 2008 Microbial Population Growth Potential as Soil Fertility Indicator in Perennial Central Amazonian Plantations Treated with Charcoal, Mineral- or Organic Fertilizer. *Tropical Science* 47 (4), 218-230.

Book contributions

Steiner C, Teixeira W G, Narayan S, Major J, Lehmann J, Zech W and Blum W E H 2009 Corte e Carbonização como Uma Alternativa ao Corte e Queima: Estudos Na Amazônia . In As Terras Pretas de Índio da Amazônia: Sua Caracterização e Uso deste Conhecimento na Criação de Novas Áreas . Eds W G Teixeira, D C Kern, B Madari, H N Lima and W. Woods. pp 297-305. EMBRAPA, Brazil

Teixeira W G, Martins G C, Macedo R S, Neves Junior A F, Moreira A, Benites V. M, Steiner C 2009 As Propriedades Físicas e Hídricas dos Horizontes Antrópicos das Terras Pretas de Índio na Amazônia Central . In As Terras Pretas de Índio da Amazônia: Sua Caracterização e Uso deste Conhecimento na Criação de Novas Áreas . Eds W G Teixeira, D C Kern, B Madari, H N Lima and W. Woods. pp 242-250. EMBRAPA, Brazil

Steiner C, Teixeira W G, Lehmann J and Zech W 2004 Microbial Response to Charcoal Amendments of Highly Weathered Soils and Amazonian Dark Earths in Central Amazonia - Preliminary Results. In Amazonian Dark Earths: Explorations in Space and Time. Eds B Glaser and W I Woods. pp 195-212. Springer Verlag, Heidelberg.

Steiner C., Teixeira W G and Zech W 2004 Slash and Char: An Alternative to Slash and Burn Practiced in the Amazon Basin. In Amazonian Dark Earths: Explorations in Space and Time. Eds B Glaser and W I Woods. pp 183-193. Springer Verlag, Heidelberg.

Steiner C. 2008 Soil Charcoal Amendments Maintain Soil Fertility and Establish a Carbon Sink - Research and Prospects . In Soil Ecology Research Developments. Eds Tian-Xiao Liu. Nova Science Publishers, New York.

Steiner C, Koppo G 2008 Use of Biochar to Replenish Soil Carbon Pools, Restore Soil Fertility and Sequester CO₂ - Global Potential and Obstacles. In Geotherapy: Innovative new Technologies for Sustainable Development and Reversing Climate Change. United Nations Commission on Sustainable Development Partnership in new Technologies for Small Island Developing States. Eds Goreau T J. United Nations Publishing House.

Steiner C, Garcia M and Zech W 2009 Effects of Charcoal as Slow Release Nutrient Carrier on N-P-K Dynamics and Soil Microbial Population: Pot Experiments with Ferralsol Substrate. In Amazonian Dark Earths: Wim Sombroek's Vision. Eds W I Woods, W Teixeira, J Lehmann, C Steiner A M G A WinklerPrins and L. Ribellato. Springer.

Steiner C, Teixeira W G,
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J Lehmann, C Steiner A M G A WinklerPrins and L. Ribellato. Springer.

Steiner C, Teixeira W G and
Zech W 2009 Effects of Charcoal Application on Soil Nutrient Contents, Mineral
Nutrition of Banana (*Musa sp.*) and Fruit Production - an On-Farm Study in the
Central Amazon, Brazil. In Amazonian Dark Earths: Wim Sombroek's Vision. Eds W I Woods, W Teixeira,
J Lehmann, C Steiner A M G A WinklerPrins and L. Ribellato. Springer.

Birk J J, Steiner
C, Teixeira W G, Zech W and Glaser B 2009 Microbial Community Structure and Organic
Matter Turnover in a Highly Weathered Amazonian Upland Soil Treated with
Charcoal, Mineral and Organic Fertilizers. In Amazonian Dark Earths: Wim Sombroek's Vision. Eds W I Woods, W
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J Lehmann, C Steiner A M G A WinklerPrins and L. Ribellato.
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Swami S N, Steiner C,
Teixeira W G and Lehmann J 2009 Charcoal Making in the Brazilian Amazon:
Economic Aspects of Production and Carbon Conversion Efficiencies of Kilns. In Amazonian Dark Earths: Wim
Sombroek's Vision. Eds W I Woods, W Teixeira,
J Lehmann, C Steiner A M G A WinklerPrins and L. Ribellato. Springer.

Edited Book

Woods W I, Teixeira W,
Lehmann J, Steiner C, WinklerPrins A M G A and Ribellato L 2007 Amazonian Dark Earth: Wim Sombroek's Vision.
Springer .

Conferences and Workshops

Steiner C 2008 How to be carbon negative and create a better economy, keynote speaker, The international Bioenergy
Days, Minnesota, USA, September 28-October 3, 2008

Steiner C and Kopolu G 2008 Use of biochar to replenish soil carbon pools, restore soil fertility and sequester CO₂ -
global potential and obstacles, Africa Carbon Forum, Dakar, Senegal, September 3-5, 2008

Steiner C, Glaser B, Teixeira WG, Lehmann J, Blum WEH and Zech W 2008 Nitrogen retention and plant uptake on a highly weathered central Amazonian Ferralsol amended with compost and charcoal, EUROSOIL, Vienna, Austria, August 25-29

Steiner C 2008 Soil Charcoal Amendments to Maintain Soil Fertility and Fix Carbon: Scenarios for Major Eco-Regions, 16th Session of the UN Commission on Sustainable Development (CSD-16), New York, USA, May 5-16, 2008

Steiner C 2007 Charcoal as Soil Amendment - Research and Prospects.
UN Climate Change Conference, Bali, 3 - 14
December 2007

Steiner C, Zech W and Teixeira W G 2006 Microbial Activity as Soil Quality Indicator in Annual and Perennial Plantations Treated with Charcoal, Mineral- or Organic Fertilizer in a Highly Weathered Amazonian Upland Soil. In World Congress of Soil Science, Philadelphia, Pennsylvania, USA, July 9-15, 2006.

Steiner C, Teixeira W G, Lehmann J and Zech W 2004a Charcoal as Soil Conditioner: Studies in the humid Tropics. In Energy & Agricultural Carbon Utilization: Sustainable Alternatives to Sequestration, University of Georgia, Athens, USA, June 10-11, 2004a.

Steiner C, Teixeira W, Lehmann J, Nehls T and Zech W 2002a Soil charcoal amendments maintain soil fertility and create a carbon sink. In 2nd international LBA Conference, Manaus, Brazil, 7.-10.7.2002, 2002a. Ed LBA.

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Teixeira W G, Martins G C, Arruda M R and Steiner C 2006 The Rescue of an Old Indigenous Practice in the Tropics - Using Charcoal to Improve Soil Quality. In World Congress of Soil Science, Philadelphia, Pennsylvania, USA, July 9-15, 2006.

Day D, Lehmann J, Steiner C and Das K C 2005 Long-term sequestration of carbon in soils using Charcoal from renewable energy production. In Third USDA Symposium on Greenhouse Gases & Carbon Sequestration in Agriculture and Forestry, Wyndham Baltimore - Inner Harbor, Baltimore, Maryland, USA, March 21-24, 2005.

Glaser B, Lehmann J, Steiner C, Nehls T, Yousaf M and Zech W 2002 Potential of pyrolyzed organic matter in soil amelioration. In International Soil Conservation Organization Conference, Beijing, 26-31 May, 2002.

Lehmann J, da Silva Jr J P, Rondon M, Cravo M d S, Greenwood J, Nehls T, Steiner C and Glaser B 2002 Slash and char - a feasible alternative for soil fertility management in the central Amazon? In 17th World Congress of Soil Science, Bangkok, Thailand, 14. - 21. 08. 2002, 2002. Ed T I U o S Sciences. pp 449-441 - 449-412.

Lehmann J, Jr J P d S, Nehls T, Steiner C, Cravo M d S and Glaser B 2001a Managing Terra preta nova in the central Amazon. In Terra Preta Symposium at the Conference of the Latin American Geographers, Benicassim, Spain, 2001a. Eds B Glaser and W I Woods. pp 15.

Lehmann J, Jr J P d S, Nehls T, Steiner C, Cravo M d S and Glaser B 2001b O Manejo de terra preta nova na Amazônia Central. In XI Congresso da Sociedade de Arqueologia Brasileira, Rio de Janeiro, Brazil, September 23-29 2001, 2001b. pp 64.

Minnich B, Obermair G, Steiner C, Adam H, Leiner G and Wicker A 1998 The effect of radon-balneotherapy at the Gastein Spa on circadian system and general well-being in patients suffering from rheumatic diseases. In Int. Symposium Radon & Health, Pre-Conference to the European Health Forum, Bad Hofgastein, 1998.

Obermair G, Steiner C, Adam H, Leiner G, Wicker A, Deacon S and Minnich B 1998a Circadian rhythm parameters in patients with chronic rheumatism: Effect of Melatonin and Radon-Balneotherapy. In Outcome Measurements in Physical Medicine and Rehabilitation, Wien (AKH), 1998a.

Obermair G, Steiner C, Adam H, Leiner G, Wicker A, Deacon S and Minnich B 1998b Effects of Melatonin on chronic arthrosis patients undergoing Radon-Balneotherapy. In Int. Symposium Radon & Health, Pre-Conference to the European Health Forum, Bad Hofgastein, 1998b.

Conference
participation only

& Exhibition, October 17-21, Paris,
France

Renewables 2005, Beijing
International Renewable Energy Conference, The Great Hall of the People, Beijing, China

Books

Steiner C 2007 Slash and Char as Alternative to Slash and Burn. Cuvillier Verlag, Göttingen. 190 pp.

Steiner C 2001 The Drill (*Mandrillus leucophaeus*) an endangered Species and natural Resource in Korup Project Area - Cameroon. Cuvillier Verlag, Göttingen. 61 pp.

Minnich B, Obermair G and Deacon S 2001 Chronobiology and Chronic Rheumatism: Effects of Radon-Balneotherapy and Melatonin Treatment within Chronic Arthrosis. Lang Europäischer Verlag der Wissenschaften. 185 pp.

Radio - interviews

"Drill-bushmeat in West Afrika", Ö1-Dimensionen, Interview, ORF, April 2001.

"Bio-Diversität und Biopiraterie", Radio Salzburg, Interview, ORF, April 2001.

"Terra Preta", Ö1-Dimensionen, Interview, ORF, Feb. 2002.

"Biochar: Holzkohle speichert Klimagas CO₂" Ö1-Dimensionen, Interview, ORF, January 2008.

Television

"Bauer im Regenwald
- Terra Preta", Salzburg heute, ORF, January 2002.

"The Secret of El Dorado", DOX productions, BBC Horizon, December 2002.

"Terra Preta - Das schwarze Gold des Amazonas"
Peter Adler, ARTE, 2005